



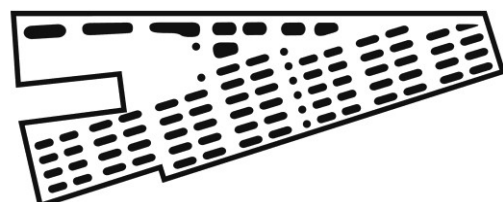
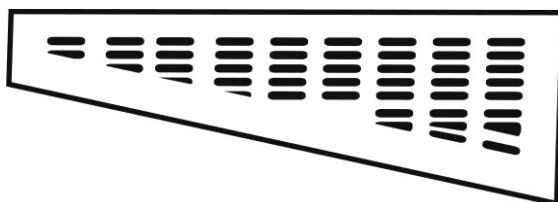
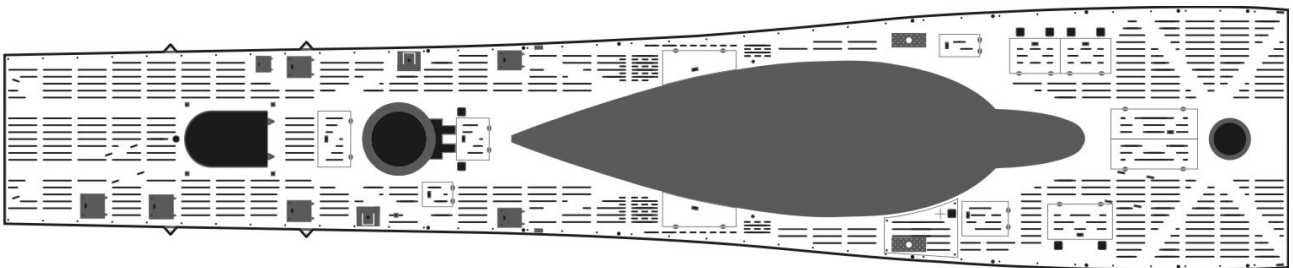
ACCURATE
MODEL PARTS

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Type VIIC Deck & Floods Set

Upgrade set 72-02 1/72nd scale Type VIIC U-Boat Deck & Floods Set

Instruction booklet



Content

The Accurate Model Parts 72-02 Type VIIC U-Boat Deck & Floods Set consists of 168 parts in photo-etched brass. It is designed to improve the 1/72nd scale Revell kit number 5015 (Type VIIC “Wolf Pack”). It can also be used on Revell kit number 5045 (Type VIIC/41 “Atlantic” version) since many VIICs had a slotted deck and a Turm IV tower. The four floods pieces are suitable for both Revell kits.

Our brass deck consists of 5 main deck sections, numbered A1, B1, C1, D1 and E1. A1 is the section nearest the bow and E1 is nearest the stern. All our parts in this set have been given a prefix ranging from A to K. All parts with the prefix A (eg. A2 and A3) should be fitted to deck section A1.

Prefix	Content	Associated parts	Stage	Number of parts
A	Deck section A1	A2 and A3	2	4
B	Deck section B1	B2 to B17	3	36
C	Deck section C1	C2 to C12	4	19
D	Deck section D1	D2 to D10	5	25
E	Deck section E1	E2 and E3	6	4
F	Strips around 88mm deck cannon	F1 to F5	7	46
G	Strips around capstan	G1 to G5	8	8
H	Tower	H1	9	4
I	Saddle tank covers	I1 and I2	10	10
J	Sacrificial anodes	J1 and J2	11	8
K	Floods	K1 to K4	12 & 13	4

We have included three additional sheets –

1. Parts identification guide (1) shows what each part looks like in 72nd scale. This should allow the modeller to find the parts more easily on the brass sheet. The main deck sections are not included in this guide.
2. Parts identification guide (2) identifies the part number of the parts housed within the tower area of the sheet. This is necessary because it was not possible to provide part numbers on the brass sheet itself.
3. A 1/72nd plan showing the exact placement of: strips around 88mm deck cannon; strips around capstan; saddle tank hatch covers.

Research & Design

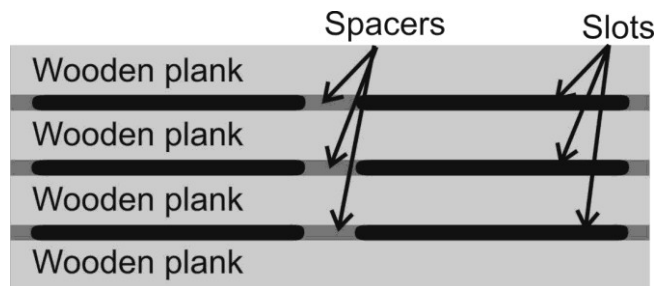
Aftermarket sets have been previously released to replace the deck on Revell’s RV5015 Type VIIC U-boat kit. However, when we researched Type VIIC decks in detail we found numerous areas that could be further improved and corrected, both in the kit deck and the aftermarket alternatives.

With many hundreds of Type VIIC U-boats built, slight differences existed between the slots upon the decks of different VIICs. These slight variations in slot patterns ensure that it is impossible to design one drawing which covers every single boat. This set cannot, therefore, be entirely accurate with regard to the slot pattern of every single VIIC. This set does, however, correct the inaccuracies in the Revell deck (such as slot sizes and the position of hatches and details) and provide a much improved slot pattern. The set also includes many of the small deck details that are missing from the kit deck and aftermarket alternatives.

Although VIIB and VIIC deck plans do exist, we have found them to be inaccurate with regard to position and size of features. They cannot, in our opinion, be relied upon to design an accurate deck. At the time of the kit's original release, a decade ago, we did not possess enough period photographs to design an entire VIIC deck using only photos. For this reason, and our reluctance to rely upon plans with accuracy issues, we were not in a position to design our own photo-etched brass deck. After years of collecting more period deck photos, it slowly became possible to cover every aspect of the VIIC deck, all the way from the metal section at the bow, through the main wooden deck (which ran on top of most of the boat), to the metal section at the stern. Even with hundreds of deck photos, and the studious use of a magnifying glass, it was only just possible to achieve this goal. Although we did refer to deck plans, **the design of the AMP VIIC deck was completed using only period photos of Type VIIC decks.**

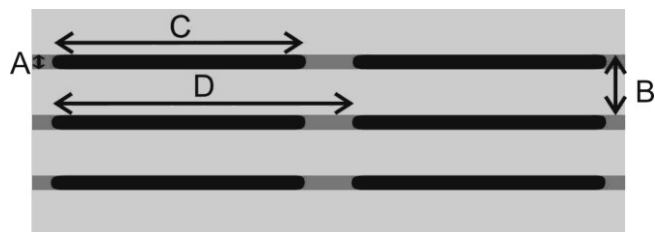
As previously mentioned, a deck design which is perfect for all boats is precluded due to the slight variation in slot patterns between boats. However, other than the slot patterns, a deck design which is accurate with respect to every other feature does exist because of the nature of the slot-based wooden deck and the relative slot-to-feature system inherent in this design. An explanation of this is provided below.

On Type VIIC U-boats the wooden "slotted" deck was built with slots which allowed water to drain through the surfaces of the deck. As can be seen on the drawing below, adding wooden spacers in between wooden planks left a distinctive pattern of slots on the deck.



This distinctive style of planks, spacers and slots was used on all U-boats in the immediate pre-war and early-war period. Therefore the decks of the Type IIs, Type VIIs (of all variants) and Type IXs built in this period all had this characteristic type of deck. Around the autumn of 1942 new U-boats were built with a simplified "planked" deck. This planked style was not retrofitted to existing boats so any VIIC launched before the autumn of 1942 retained their slotted deck until their demise.

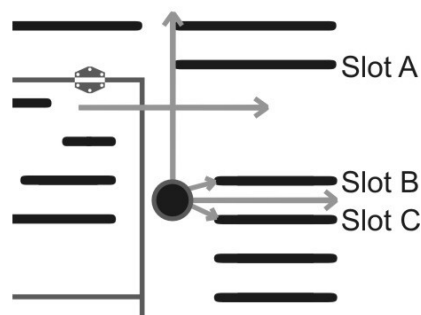
On AMP set 72-01 we created a photo-etched Type IIA deck similar in style to the VIIC deck. With both sets it was imperative that we ascertained at the earliest opportunity the exact slot width and length, plus the distance between slots. The drawing below shows the important measurements.



After calculating the Type II and Type VIIC deck slot measurements independently, we found that each of the four measurements for A, B, C and D were exactly the same in both types of boat.

Distance A is the main feature which is noticeably too large on the Revell plastic deck. Other distances on the Revell deck (and other aftermarket decks which copied the Revell deck measurements) were fractionally out with regard to B, C and D. For example, distance B (slot width + plank width) is slightly too large on the Revell kit. This can be evidenced just behind the cook's hatch: on the plastic Revell deck, 21 slots fit across the deck, whereas on the AMP deck (and real boats) there is space for 23 slots to fit across the deck. This is an example of the cumulative effect of small inconsistencies having a noticeable effect upon slot patterns.

The reason that these measurements are important is because once accurate slots dimensions are ascertained the pattern of slots creates a grid. The size and position of all the deck details can be determined by their size and position relative to this grid. An example can be found below. Imagine we are looking at a photo which shows a hole in the deck next to a hatch and we wish to determine the exact position. We can determine the horizontal position because we can see that the centre of the hole is aligned with the left hand side of slot A. We can determine the vertical position because we can see that the hole lies midway between slots B and C.



On the AMP VIIC deck (and Type II deck in set 72-01) this relative slot-to-feature system was used to design every part of the deck.

By doing so the AMP deck has several original features or improvements, many of which have not featured in other sets –

- Correct slot sizes and distances between slots; this allowed the correct number of slots to be placed across the deck.
- The small round holes along the deck edges; these were used for the removable deck railings on the real boats.
- The incorporation of the extra “dashed” lines of slots on the deck on either side of the tower. As can be seen in Stage 1, these dashed lines were features of the early *Germaniawerft* VIIBs and VIICs (and can easily be filled in to model other VIICs).
- The anti-slip bumps on all the metal deck surfaces.
- All metal hatches are provided separately so that the slight gap around the hatch can be depicted on a completed model.
- The small openings used for the torpedo loading apparatus; this includes both the rectangular or circular holes in full-etch plus the surrounding surface detail in half-etch.
- Corrected placement of hatches, bollards and deck details.
- An air identification plate (with authentic placement offset to port) with bolt heads. We included the holes in the deck where the plate was attached to the deck in case the modeller wishes not to use the identification plate.
- A full set of strips – complete with anti-slip bumps - around the 88mm deck cannon and capstan.
- Improved pattern of slots around the 88mm deck cannon.

- Semi-circular holes on the wooden hatches on the aft deck.
- All the other deck details required to build an accurate deck.

Due to the desires expressed by fellow modellers, we included saddle tanks hatch covers and sacrificial anodes as a bonus. Another bonus is the one-piece wooden tower seat used on the railings at the rear of the tower on early *Germaniawerft* boats (including popular boats such as U 69, U 94, U 96 and U 201).

As soon as the first shots of Revell's RV5015 Type VIIC U-boat kit became available online, it was evident that there were deficiencies in the free-flooding vents in certain areas of the hull. The first and most obvious problem is that some slots are produced as rectangles in the kit; unfortunately the real boats had oval slots. This was especially apparent in two main areas –

- Front floods - the group of vents just behind the forward dive planes
- Rear floods - the group of vents just ahead of the rear dive planes

Our floods pieces K1 to K4 have the oval shapes. In addition, our front pieces have been corrected for the sizing issue that is covered in more detail in Stage 12.

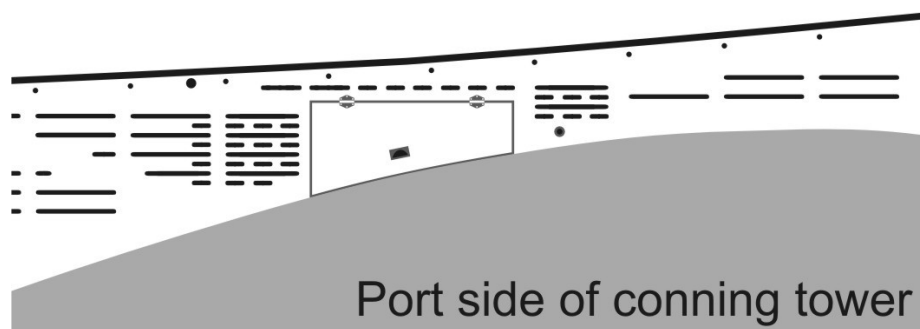
Acknowledgements

We would like to thank Simon Morris, who posts on the AMP forum as “NZSnowman”, for his contributions to AMP forum discussions and in particular for his research on VIIC saddle tanks hatch covers. Simon has been designing an extremely accurate and detailed schematic of a Type VIIC/41 U-boat for several years. Simon kindly allowed us to consult his drawing during the design of deck part E1 (the metal section nearest the stern). His drawings of the saddle tank hatch covers also proved useful during the design of our hatches. The size of our hatches coincides with Simon's design, while the locations of our various hatches are very close to his design.

We also extend our appreciation to AMP forum member Pat, who has contributed very useful information about sacrificial anodes to forum discussions. This information has increased our collective knowledge of the purpose of the anodes and their use upon U-boats.

Stage 1 – Main deck sections

- On the VIIBs and VIICs built at the *Friedrich Krupp Germaniawerft AG* shipyards in Kiel, extra “dashed” lines of slots (see below) were placed between the main slots around the tower. If you are modelling an early boat built at the *Germaniawerft* shipyard, then leave these dashed lines in place. It is possible that a few other early VIICs from other shipyards had these dashed lines but we have found no evidence of this to date.



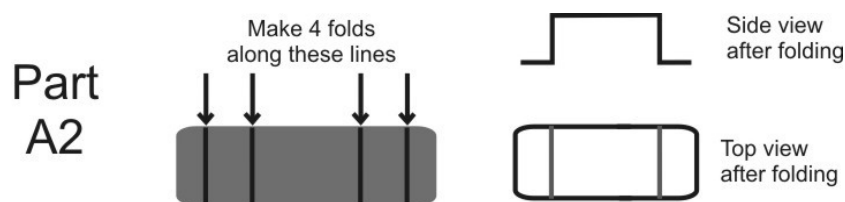
- If you are modelling a VIIC built in another yard, you should fill in these extra dashed lines on deck section C1. You can do this by gluing a small strip of plastic directly underneath each of the dashed lines, masking off the normal slots and then filling the top surfaces in with modelling putty.
- The five main deck sections – A1, B1, C1, D1 and E1 should be added to the top of the hull; these replace parts 64, 65 and 66 in the Revell kit.
- The photo-etched deck sections are much thinner than the Revell plastic deck sections. It is therefore necessary to add supporting strips along the edges of the underside of the brass. On the real boats there was a very slight lip running along the edge of the wooden sections of the VIIC deck. If you wish to faithfully replicate this lip, it can be done by making the supporting strips of sufficient height to allow the AMP brass deck to sit just below the edges of the Revell hull. Care should be taken not to overdo this lip – in 72nd scale the deck should sit only a fraction below the hull.
- Sections A1 and E1 were made of metal on the real boats. No lip should be created along these sections as they both sat perfectly level with the top of the hull.
- It is advisable to add some form of cross-bracing on the underside of the brass deck sections, running from one side of the hull to the other. This will provide sufficient support and strength of join. These cross braces should not be visible on the completed model so they should be strategically placed in locations away from the deck slots.
- It would also be prudent to add supporting strips under the join between each of the deck sections.

Stage 2 – Deck section A

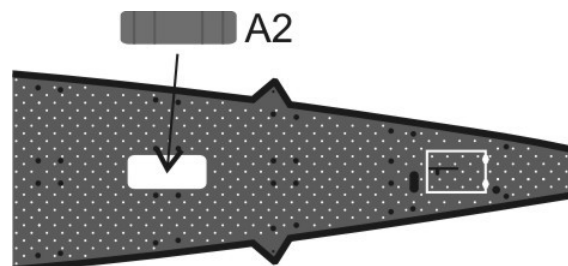
This section deals with adding the deck details to deck section A1.

Deck section A1 is the farthest forward of all of the deck sections. On the real VIICs this area was made of metal, with anti-slip bumps on the surface to help prevent sailors from losing their footing. These very small bumps are not present in other aftermarket sets but have been faithfully recreated on the AMP VIIC deck.

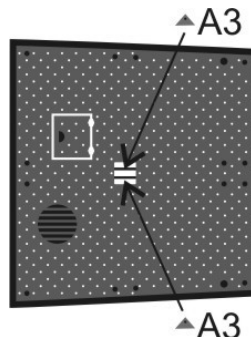
- Part A2 is a fairlead and should be folded as per the diagram below.



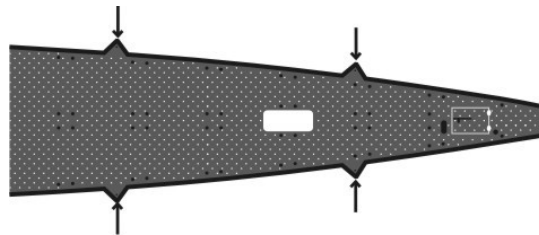
- After folding, part A2 should be added to deck section A1 –



- Part A3 consists of a small triangular shape that was positioned vertically. There were two of these triangles towards the rear of deck section A1. Both should be mounted vertically along the two lines shown in the diagram on the next page.



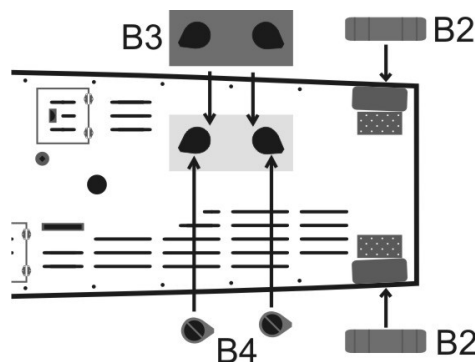
- The early Type VIICs had net cutters (Revell parts 112 to 114) in place at the bow. On the 1st March 1941 an order to remove the net cutters was issued. As a result, most of the net cutters were removed in March and April 1941. On the boats which previously had the net cutter, the vertical triangular supports at the base of the cutter legs were retained at the edge of the deck. Note that boats which were in the process of being built in the period before March 1941 may have had the net cutter in place when the order for their removal was issued. In this circumstance, even though a boat had not yet been launched, the net cutter would have been removed.
- To depict these triangular supports, we added four triangular shapes at the edge of our deck section A1. If you are modelling a boat with a net cutter in place, simply cut off these triangles. If you are modelling a boat which previously had a net cutter, fold each of the four triangles upwards to the same angle that the net cutters had been positioned. If you are modelling a boat which never had a net cutter, simply cut off the four triangles from the edge of the deck section A1.



Stage 3 – Deck section B

This section deals with adding the deck details to deck section B1.

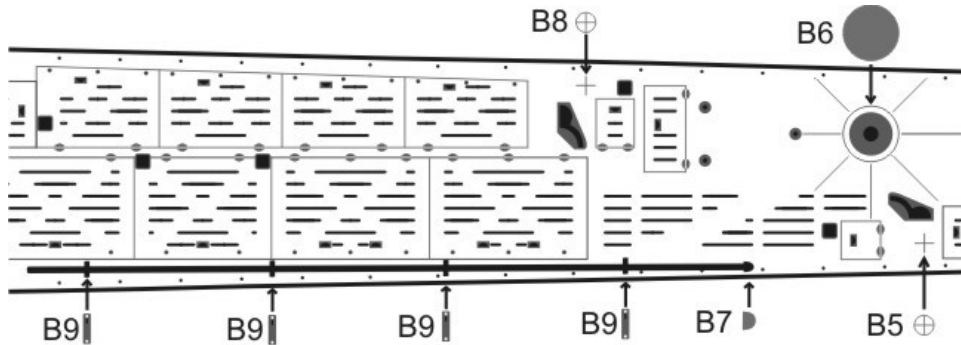
- Part B2 is the same type of fairlead as in part A2. Firstly you should fold B2 in the way as you did with A2. Then add B2 (both pieces) to the front of deck section B1 as in the diagram below.



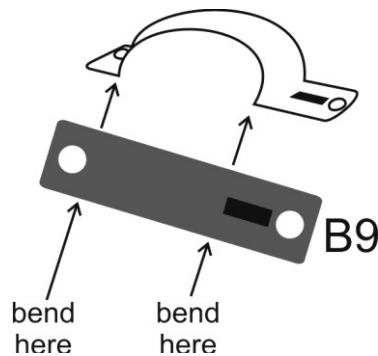
- Next add bollard baseplate B3.
- You should decide whether you wish to have the bollards in the extended position (as they would normally be when in port) or in the retracted position. If you wish the bollards to be

extended, add two plastic or brass rods above the baseplates, then add bollard tops B4 on top.

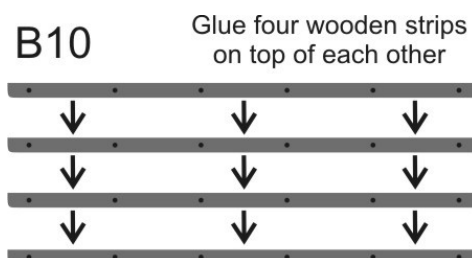
- If you wish the bollards to be in the retracted position, simply add the bollard tops B4 within the holes in baseplate B3.
- Add the circle and cross markers B5 and B8 to the locations below. A cross has been marked on the brass deck to help you with placement.
- If you are depicting the capstan in the retracted position, add B6 directly over the capstan area. If the capstan is to be used on your model then do not add B6.



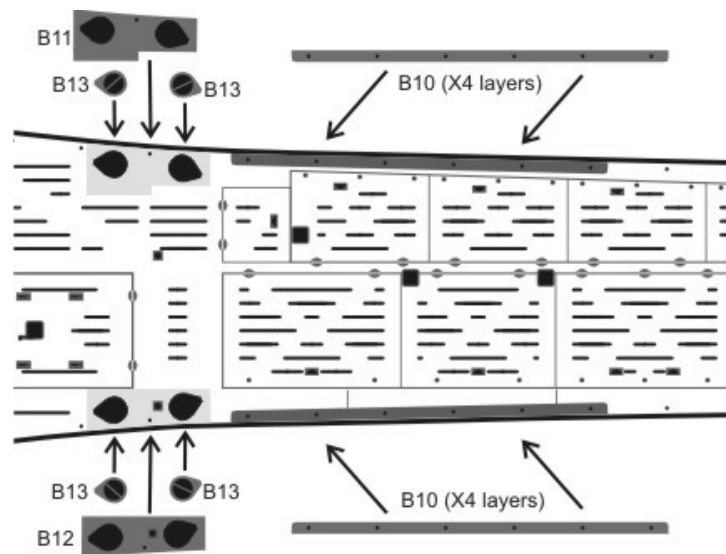
- A wooden pole (part number 48 in the Revell kit) featured on the starboard side of deck section B1. To replace this item add a plastic or brass rod 82mm in length in the position above.
- Having bent pole end B7 to a curved shape, add it to the forward end of the pole.
- There are four B9 parts, which fastened the pole to the deck. These unlocked to allow crewmen to remove the pole from the deck. Before adding each one to the deck you should fold them in two places. The diagram below shows the location where they should be folded. Once the folds have been made, the fastener should be curved in a circular shape to go around the surface of the pole. After attaining the correct shape on all four fasteners you should glue them to the deck and around the pole itself. Small lines have been added to the surface of the brass deck to help you with the location of each fastener. The black rectangle (the small rectangular area that has been etched through on part B9) should be mounted **inboard** of the pole.



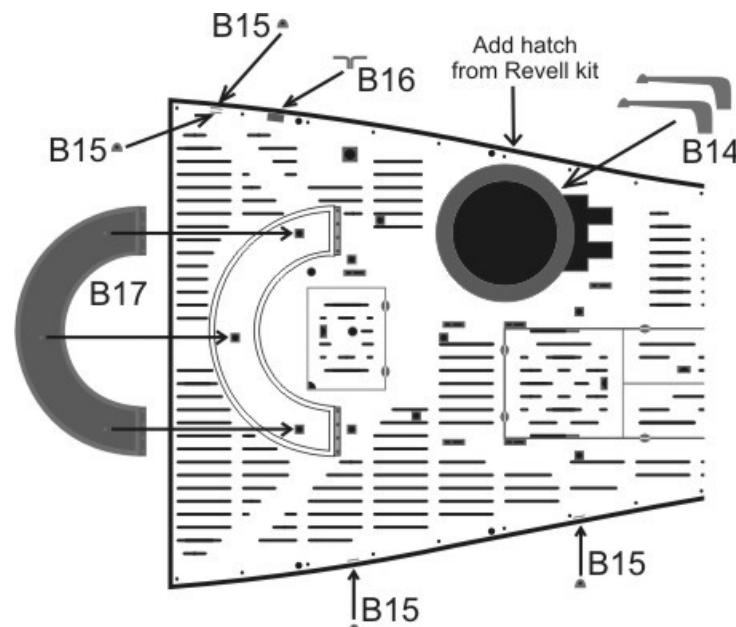
- Part B10 represents wooden strips that were present along the edge of either side of the forward deck. To attain the correct height you should glue four parts directly on top of each other. Do this with four parts for the port side and also four parts for the starboard side.



- Then add the wooden strips on either side of the deck. Note that there is a slight curve on one side; the curved side should be mounted on the **inboard** side of the deck.
- Add bollard baseplate B11 to the port side and baseplate B12 to the starboard side. Bollard tops B13 should then be added in place.



- On the port side of deck section B1 is a large round-shaped ammunition hatch. This hatch should be cut out of the plastic Revell deck and used on your completed model. If you wish to replace the two arms then cut the arms from the top of the hatch and replace them with AMP parts B14.
- Part B15 is a small triangular piece which should be mounted vertically in four locations, two on either side of the deck. The diagram shows the locations. Small lines have been marked on the brass deck to help you with placement of B15.
- The T-shaped fairlead B16 should be added vertically to the port side of the deck.

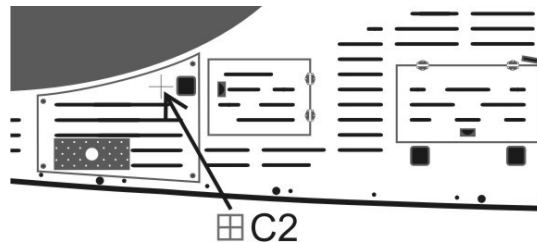


- B17 is an air identification plate, which was **sometimes** seen on VIICs when in port or near coastlines. If you wish to add this be very careful with placement on the deck. The three bolt heads on the surface of the plate should match up with the three deck holes pointed to by arrows in the diagram. Note that this plate was not mounted centrally on the deck; rather it was **slightly offset to port**.

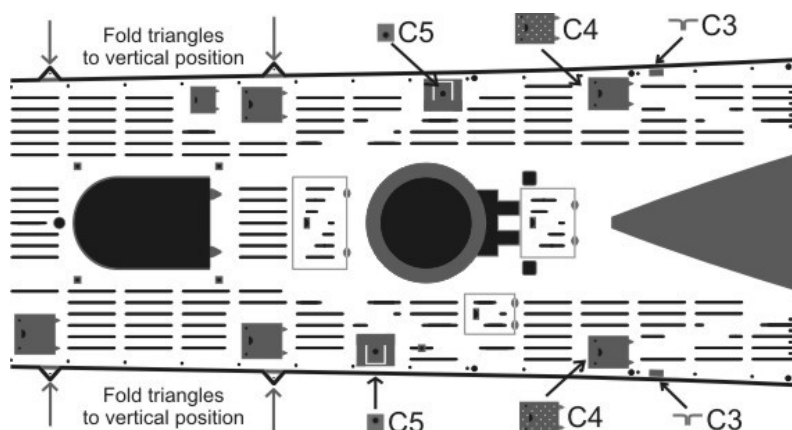
Stage 4 – Deck section C

This section deals with adding the deck details to deck section C1.

- Add the square and cross marker C2 to the starboard side of the tower on deck section C1. A cross has been marked upon the brass deck to help with placement.

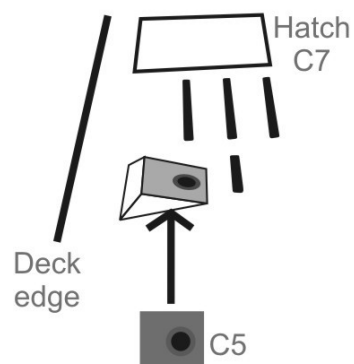


- As can be seen in the diagram below, there are four triangles which jut out from deck section D1 (two on either side of the deck). Fold all four upwards to the vertical position.
- Add the T-shaped fairlead C3 to either side of the deck in the locations shown. A half-etched rectangle has been included upon the surface of the brass deck to help with placement.
- Add metal hatch C4 on either side of the deck.

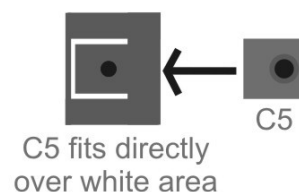


- The general area where C5 is located can be seen on the diagram above. Note that C5 on the port side is farther forward than on the starboard side.
- On the real VIICs, C5 was placed upon a slope. The diagram to the bottom left was drawn directly from a VIIC photo and gives an indication of the angle of the slope and the shape of the object upon which C5 sits.

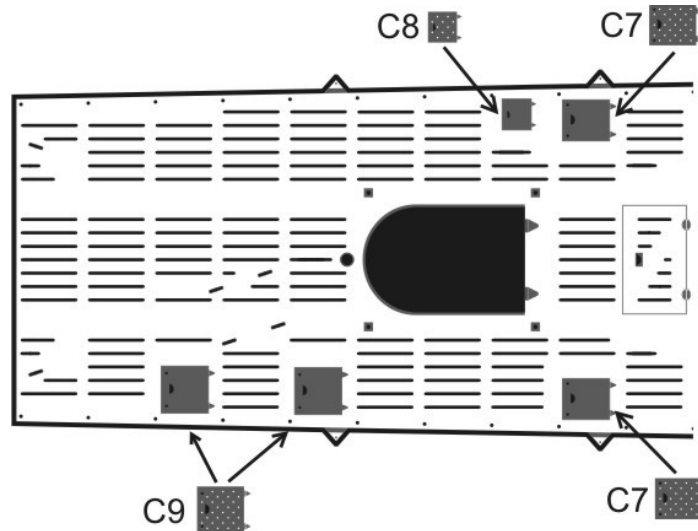
Drawing looking towards rear on starboard side



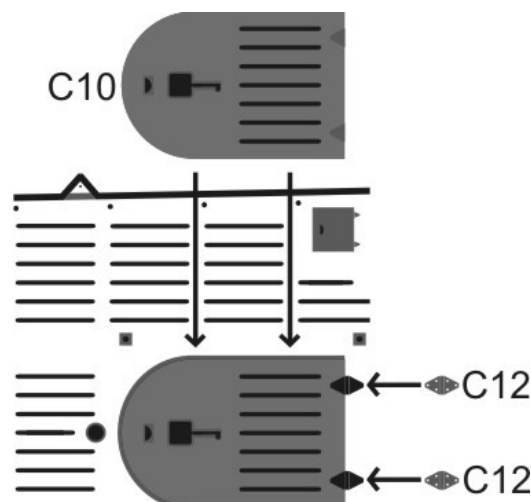
Placement of C5 starboard side



- Once you have built the sloped piece you should add it in place near the edge of the deck. The white U-shaped lines in the placement diagram (above right) have been marked upon the brass deck to assist you with placement.
- On both sides of the deck, C5 slopes upwards so that the highest point is towards the edge of the deck.
- Add the metal hatches C7, C8 and C9 as per the diagram below.



- The last item for deck section C1 is the cook's hatch. This is the large hatch on the aft deck which permitted access to the deck from inside the boat. There are many photographs showing supplies being passed through this hatch in preparation for an impending patrol. If you are depicting the hatch in the open position, part C11 (the underside) should be glued to C10 (the top of the hatch). C11 includes the bolt heads and other surface detail that was present on the **underside** of the hatch so remember to turn C11 upside down so this surface detail can be seen. When in the open position the cook's hatch remained nearly vertical.
- If you are depicting the cook's hatch in the closed position, do not use C11 at all – simply add C10 directly over the appropriate gap in deck section C1.
- On the deck and the hatch there is half-etch detail on both to show where the hinges should be placed. Add the hinges C12 in place.

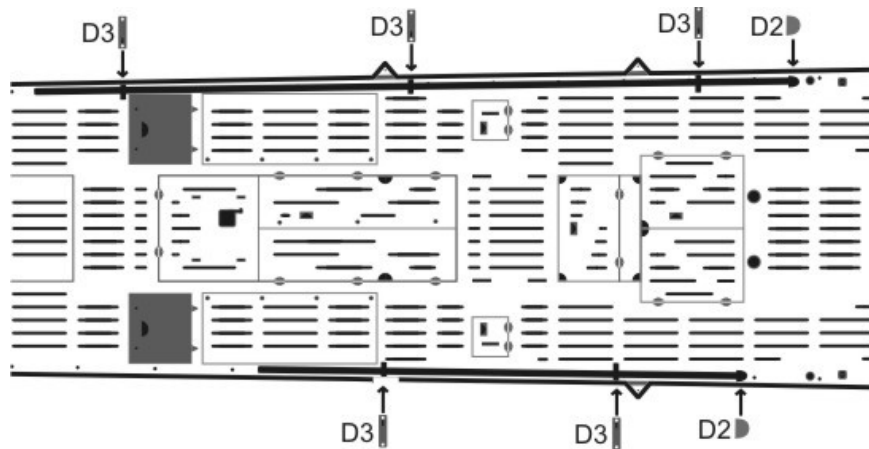


- When C10 is in place you may notice a small half etch gap on the deck around the edge of the hatch. This is to illustrate the position of a rim which ran around the edges of the cook's hatch. You should add a rim of around 0.5mm diameter directly around the edges of C10.

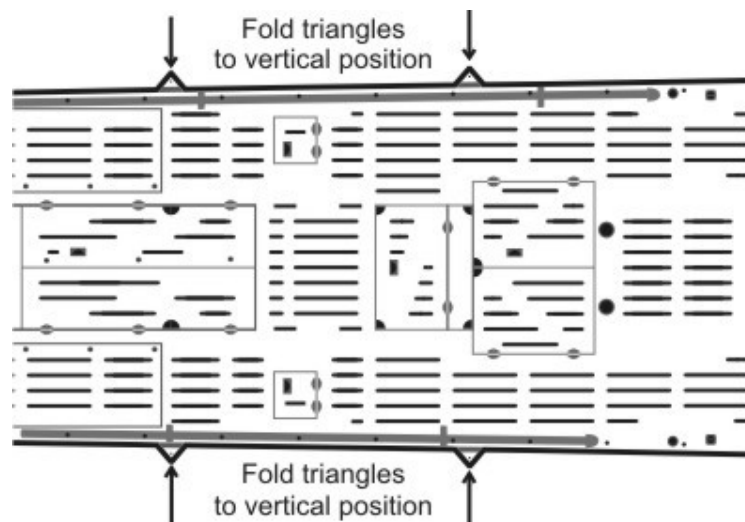
Stage 5 – Deck section D

This section deals with adding the deck details to deck section D1.

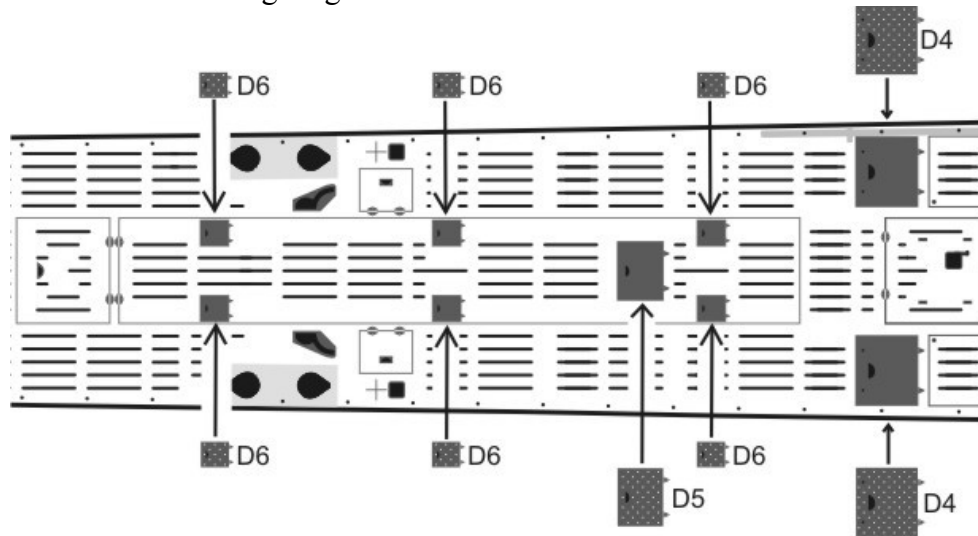
- A wooden pole featured on the port side of deck section D1. This is part number 48 in the Revell kit. To replace this item add a plastic or brass rod 82mm in length in the position below. Having bent D2 slightly to a curved shape, add it to the forward end of the pole.
- There are three parts for D3, which fastened the pole to the deck. These are the same parts as B9 so in order to fit D3 you should go back to the diagram for B9 (on page 8) and follow the same procedure. There appear to be only three fasteners for the aft deck pole rather than the four fasteners that appear to be normally present on the forward deck pole. Once again ensure that the black rectangle (the small rectangular area that has been etched through on part D3) is mounted **inboard** of the pole.



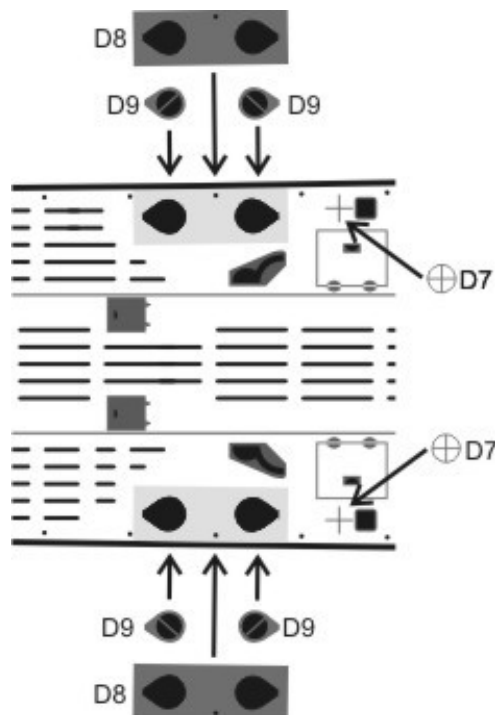
- Most VIICs only had the pole on the port side of the aft deck but there appear to be some boats which had an additional shorter pole on the starboard side of the aft deck. If you do not know whether your boat had a pole on the starboard side, do not add one. If you do wish to add this additional pole, follow the same procedure as above. This shorter pole, around 51mm in length, only required two fasteners (D3). The above diagram can be used for placement of the shorter pole, but once again we have added small lines to the surface of the brass deck to assist with the placement of the fasteners.
- There are four triangles which jut out from deck section D1, two on either side of the deck. Fold all four upwards to the vertical position.



- Add metal hatches D4 (quantity 2), D5 (quantity 1) and D6 (quantity 6) to the locations indicated in the following diagram.



- Add bollard baseplate D8 to both sides. Bollard tops B9 should then be added in place.
- The circle and cross marker D7 should be added to two locations as per the diagram below. A half etch cross has been marked into the brass deck to assist with placement of these markers.



- The small circles which ran along the deck edge were for removable deck railings. During the wartime years, when Type VIICs were operating, these railings were not usually seen on boats even in port. The exception was commissioning ceremonies, when they would normally be present along the wooden areas (sections B1, C1 and D1) but not the metal sections (A1 and E1) of the deck.

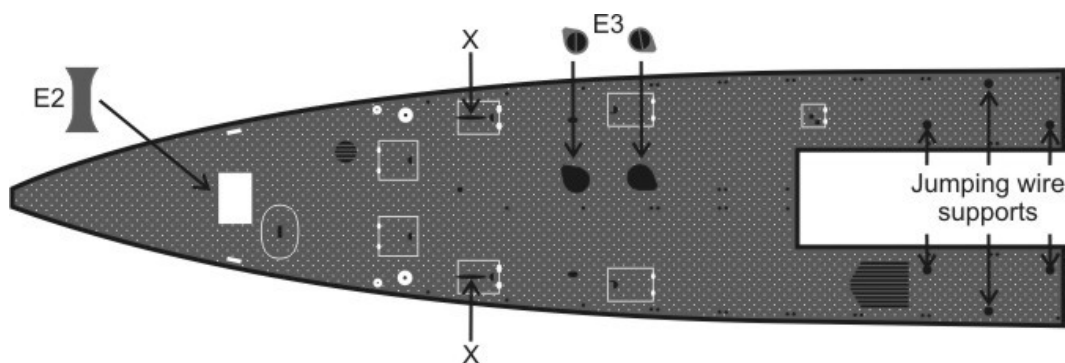
Stage 6 – Deck section E

This section deals with adding the deck details to deck section E1.

- Bend fairlead E2 to the shape below. The fairlead sat upon a rectangular baseplate with a width of 3.5 mm and length of 5.5mm. The fairlead E2 is 3.5mm in width but should be bent to allow it to fit upon the 5.5mm long baseplate.



- Add E2 to the deck in the position seen below. Note that the white rectangular area, which is raised detail upon deck section E1, is the 3.5 by 5.5 mm baseplate upon which E2 sits.



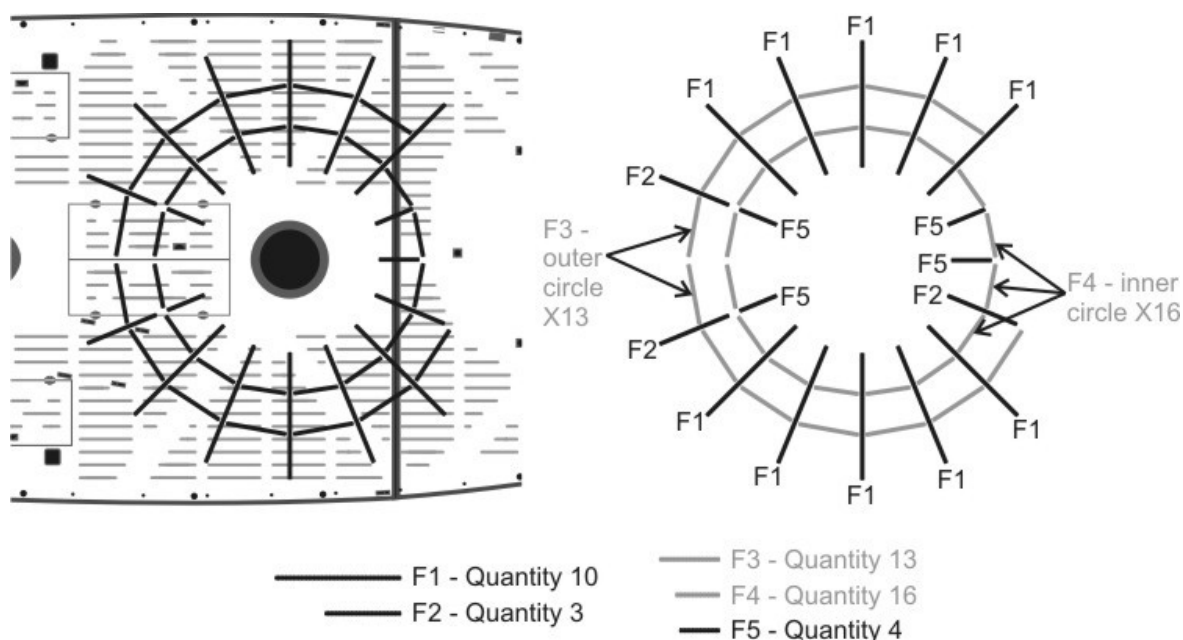
- After deciding whether you want extended or retracted bollards, add the bollard tops E3 to deck section E1. On the real boats deck section E1 was made of metal rather than wood. Since the surface was metal there was no requirement for a bollard baseplate.
- The tripod supports for the aft jumping wires – numbered 68 and 69 in the Revell kit – should be added to the two locations marked at the right hand side of the diagram above.
- The jumping wires were attached to the top of the tripod supports. They then met the deck at the locations marked with the letter X above.

Stage 7 – 88mm strips (F)

This section deals with adding the anti-slip strips on the deck around the 88mm deck cannon.

The diagram on the following page has been included in the 1/72nd scale plan. You should refer to this plan when adding the 88mm strips to your model.

There were some variances with regard to the strips around the 88mm. Some Type VIICs, for example, had slightly fewer strips in this area. On other boats the strips F3 and F4 were slightly shorter than the normal length. You should consult photos of your chosen boat to see what strips were in place. If you have no photos of this area of your boat then follow the AMP plan, which follows the pattern used on the majority of VIIC decks.

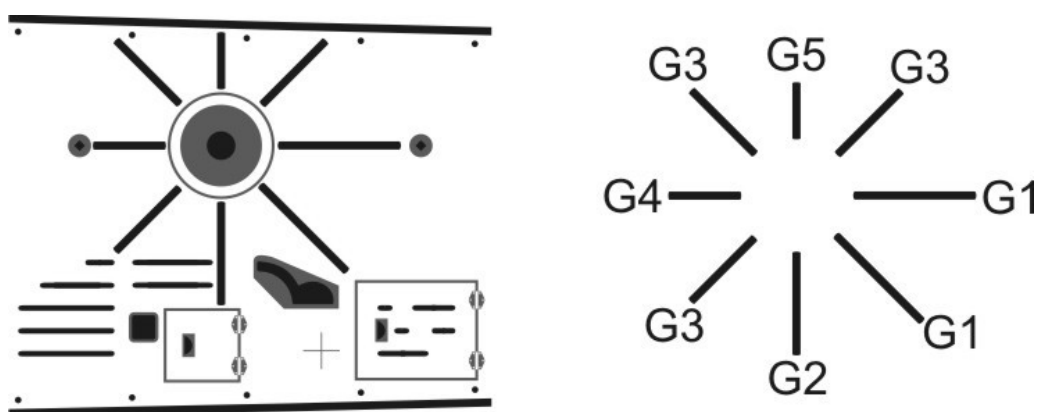


- As can be seen in the diagram to the above left, the strips around the 88mm deck cannon fit over the join between deck sections B1 and C1.
- Firstly cut out all of the strips from the brass fret, taking care to note their respective part numbers. You might wish to lay them upon the right hand diagram in the AMP plan.
- Transfer them from the AMP plan to their respective locations on the deck. The left diagram above shows their exact positions in relation to the deck slots beneath.
- Glue the strips to the deck.

Stage 8 – Capstan strips (G)

This section deals with adding the anti-slip strips on the deck around the capstan.

The diagram below has been included in the 1/72nd scale plan. You should refer to this plan when adding the capstan strips to your model.

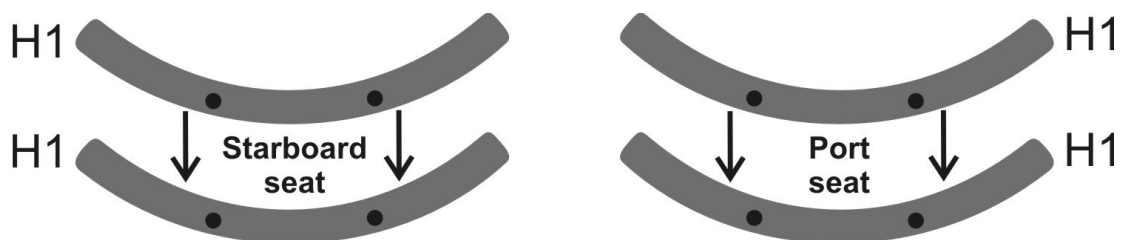


- Firstly cut out all of the strips from the brass fret, taking care to note their respective part numbers. You might wish to lay them upon the right hand diagram in the AMP plan.
- The left hand diagram above shows their exact positions. We ensured that half-etch lines were etched into the brass deck to assist you with placement of these strips.
- Transfer the strips from the AMP plan to their respective half-etch lines on deck section B1.
- Glue the strips to the deck.

Stage 9 – Tower (H)

This section deals with adding the wooden seats (H1) to the tower of *Germaniawerft* boats.

- On the early *Germaniawerft* boats a one-piece wooden seat was used on either side of the tower. H1 is included to allow such boats to be modelled correctly. To achieve the necessary thickness each seat consists of two H1 parts glued together. The tower stanchions went **through** the holes in the seats so you will need to replace these tower stanchions using plastic or brass rod of suitable diameter.

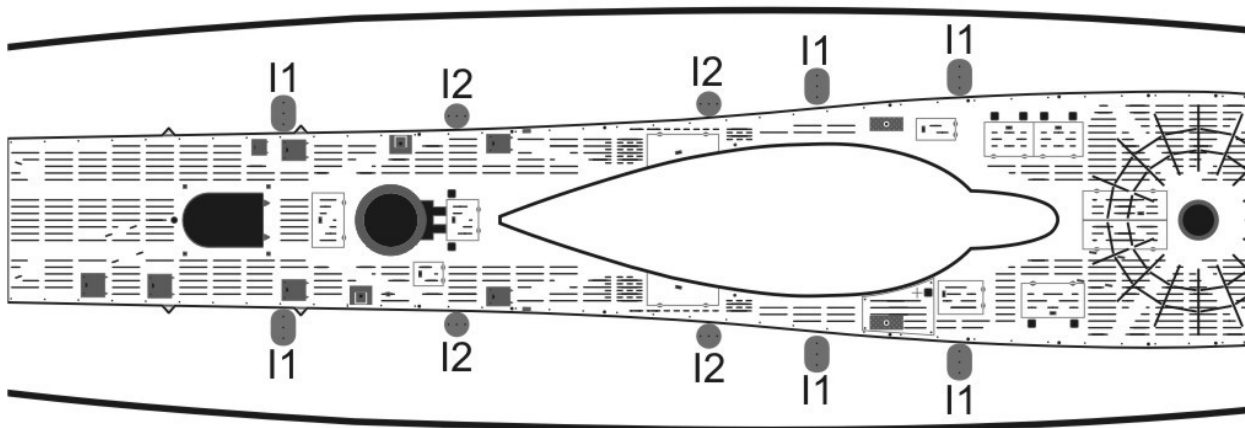


- The boats built at other shipyards tended to have three separate short tower seats per side. If you are depicting other boats then you should not use AMP part H3.

Stage 10 – Saddle tank hatch covers (I)

This section deals with adding the hatch covers to the top surfaces of the saddle tanks.

The diagram below has been included in the 1/72nd scale plan. You should refer to this plan when adding the hatch covers to your model.



- Add I1 and I2 to the saddle tanks in the positions indicated in the AMP plan. You can choose to glue them directly onto the saddle tank surface. However, if you wish to be very accurate, you can make suitable modifications so that the covers sit flush on the surface of the saddle tanks.

Stage 11 – Sacrificial anodes (J)

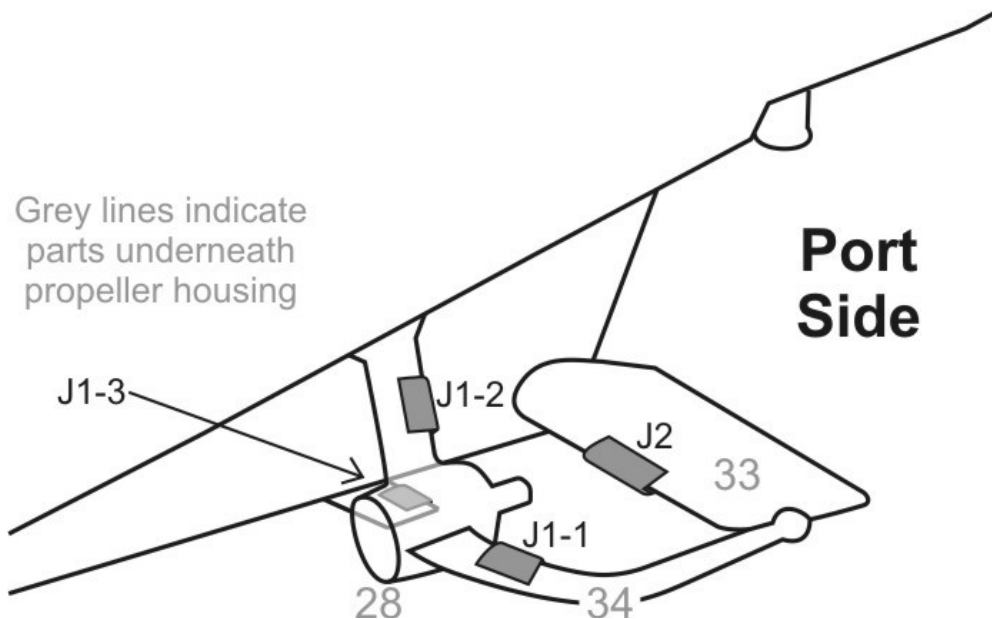
This section deals with adding the sacrificial anodes to the areas surrounding the aft dive planes.

The sacrificial anodes used on VIICs would often have been made of zinc. Due to galvanic electrolysis, the anodes would be deliberately allowed to corrode in order to preserve the important

steel items on the boat such as the rudder. Since the anodes were purposefully designed to corrode, they would need to be replaced periodically.

The sacrificial anodes were added around the stern section of the boat, usually in several locations. Their size and precise location may have varied between boats. The diagram below (based upon the anodes on the VIIB U 99) does not have to be followed implicitly; rather it can be used as one example of anode placement.

The anodes would never be painted. A coat of paint would protect the anodes, inhibiting galvanic corrosion and thus defeating the whole purpose. You should paint them in a dark silvery grey colour that you think best matches bare zinc. (Many thanks to Pat for this information)

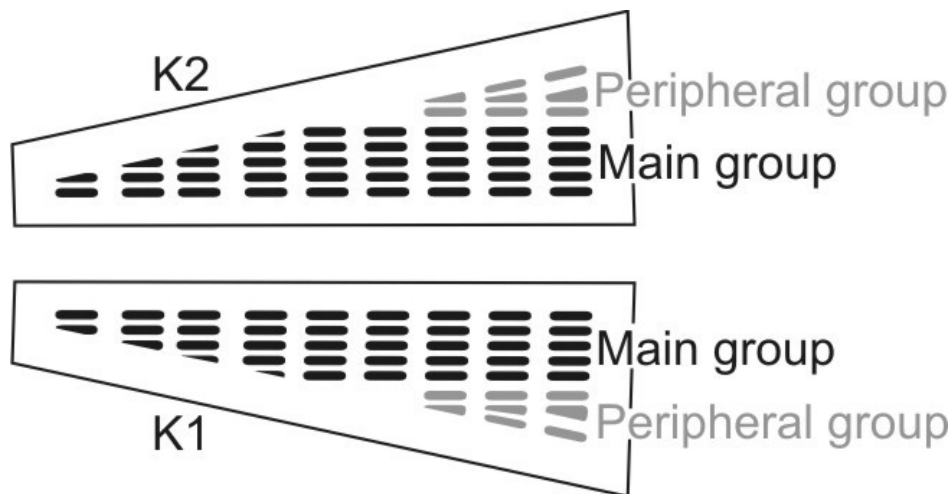


- Fold the larger anode, J2, along the half-etch line. Wrap it around the front face of the aft dive plane (Revell part 33).
- Fold all three of the smaller anodes, J1, along the half-etch line. Wrap the first small anode (J1-1 in the diagram above) around the rear face of the propeller support strut (Revell part 34).
- Revell part 28 is the propeller shaft support and consists of two support struts. Wrap the second small anode (J1-2) around the rear face of the top support strut.
- In the diagram above, the lower support strut has been drawn with grey lines to show that it lies behind the cylindrical section of Revell part 28. Wrap the third small anode (J1-3) around the rear face of this lower support strut.
- The instructions above are relevant for the port side of the boat. The same procedure should be followed for the starboard side.

Stage 12 – Front floods

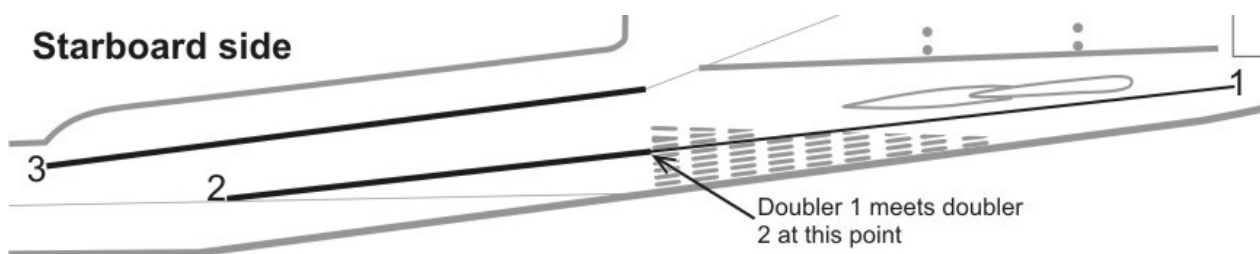
This section deals with adding the front flood pieces to the hull.

In the drawing of pieces K1 and K2 on the following page, the black vents belong to a group we shall refer to as the “main group”, whereas the grey vents belong to the “peripheral group”. All VIICs had the main group, whereas only some VIICs had the peripheral group. The peripheral group does not appear on the Revell kit but is included in K1 and K2.



Given the absence of photographic material in this area of the real boats, it is not possible to offer a list of which boats had the peripheral group. What can be stated is that U 99 (VIIB, commissioned 18th April 1940) and U 453 (VIIC, commissioned 26th June 1941) did have the peripheral group. U 471 (VIIC, commissioned 5th May 1943), U 618 (VIIC, commissioned 16th April 1942), and U 995 (VIIC/41, commissioned 16th September 1943) did **not** have the peripheral group. While the commissioning dates hint that the early VIIBs and VIICs had the group, and mid-to-later VIICs and VIIC/41s did not have the group, there is nowhere near enough evidence to state this as a fact. Given this uncertainty it is the modeller's choice whether to blank off and fill in the peripheral group.

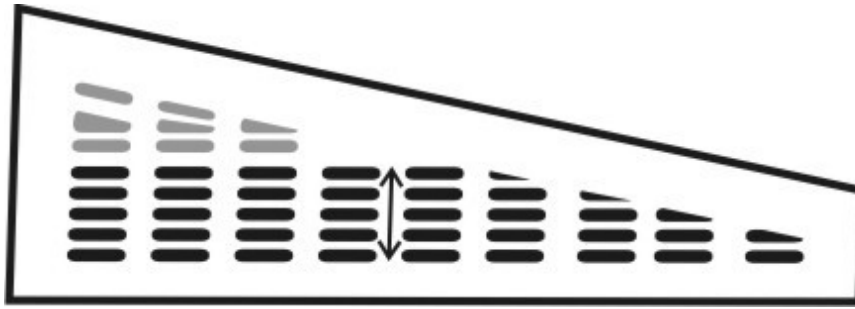
During the course of research, it became evident that three doublers (reinforcing strips added to the hull casing on top of joins) were missing from the Revell VIIC hull. These doublers have been assigned numbers in the drawing below.



Doublers 2 and 3 were the same height as other doublers on the Revell hull but doubler 1 was much narrower in height. Although there are surprisingly few period photos permitting clear views of this area of VIICs, these doublers can be seen on the VIIB U 99 and, in a few other photos, some early VIICs. Doubler 3 is not present on modern-day VIIC/41 U 995, though the boat may or may not have had this doubler when launched.

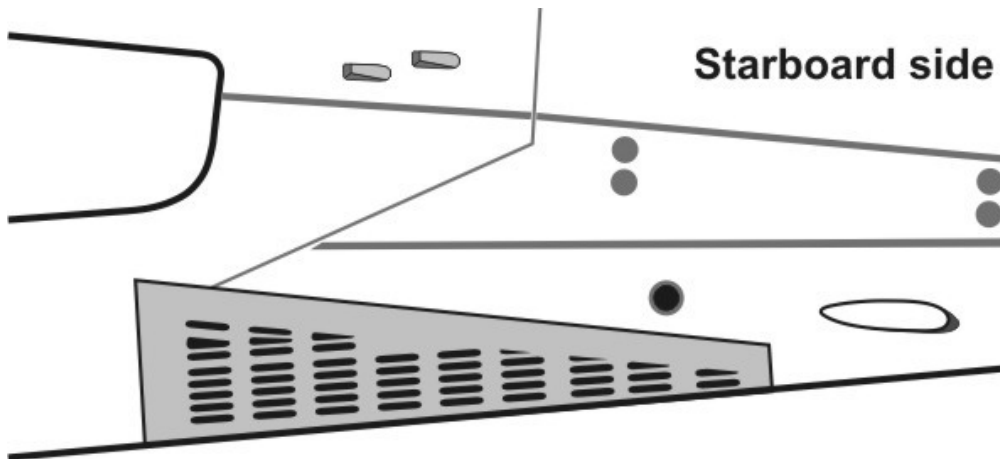
It can be seen from the diagram above that doubler 1 (which continues on in a line from doubler 2) passes **through** the front floods in between the main and peripheral group. It then continues **under** the forward dive plane and then under the dive plane guard.

The Revell kit does not include the peripheral group but, if the model had been perfect, with all vents sizes and positions correct, and dive planes and guards in similarly perfect positions, we would have been able to add doubler 1 just above the five rows in the main group and then along the hull under the foreplanes and guard.



On the drawing above, the black line (with arrows on either end) shows a distance we shall refer to as distance X. The reason that doubler 1 cannot pass through the main and peripheral group and continue under the foreplane is because distance X is too large on the Revell kit (and on the piece from an aftermarket alternative). Distance X has been reduced accordingly in AMP parts K1 and K2.

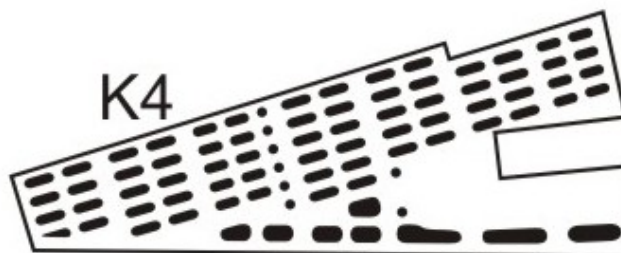
- Before any cuts are made, you should determine the correct positioning of the parts by laying the AMP part on top of the kit hull. The diagram below, drawn directly from a photo of the AMP part positioned on top of the Revell hull, illustrates the positioning of part K1. The lower edge of part K1 should sit flush with the edge of the Revell hull.
- An appropriate section should then be cut from each side of the hull to allow the insertion of the AMP parts.

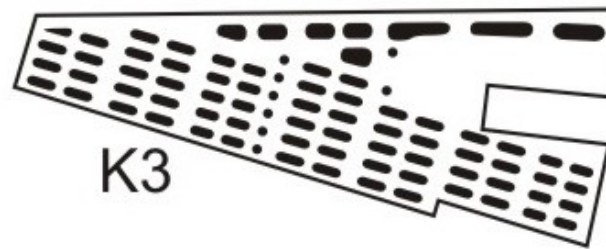


- Add K2 to the port side of the hull.
- When both sides of the hull are glued together, it would be prudent to add some form of strengthening strip between AMP parts K1 and K2.

Stage 13 – Rear floods

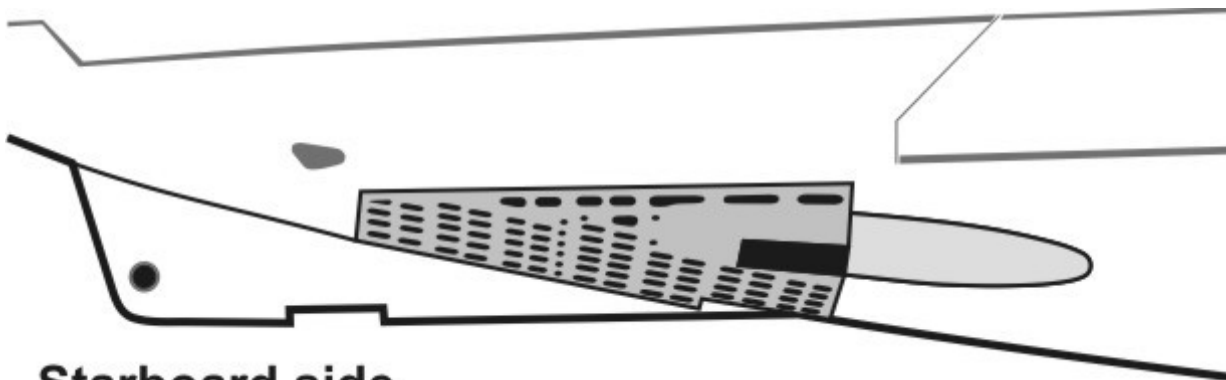
This section deals with adding the rear flood pieces to the hull.





There are almost no photographs in common circulation allowing clear views of the rear flood vent pattern ahead of the rear dive planes. One photo, of the VIIB U 99, shows the vents close up, but even this photo only shows a few of the vents in this area. To design the pattern of AMP parts K3 and K4, there was no alternative but to use photos of the museum boat U 995 at Laboe.

- The drawing below shows AMP part K3 on top of the appropriate position on the starboard side of the Revell hull.



Starboard side

- Unlike the front floods, which are flat, the rear floods should be bent to meet the curvature of the hull in this area.
- Once the correct position has been ascertained and marked, the modeller should cut a section out from the hull.
- Glue K3 in place on the starboard side.
- The propeller shaft housing and gland (Revell parts 22 and 23 on the starboard side) should then be glued in place, partially over the AMP part and partially over the Revell hull.
- Use the same procedure to add K4 to the port side of the hull.
- The propeller shaft housing and gland (Revell parts 24 and 25 on the port side) should then be glued in place.

Stage 14 – Displaying your completed model

We hope you have found our Type VIIC U-Boat Deck & Floods set useful. Please share your build by posting photos to the gallery section of the AMP forum. This will ensure your work is appreciated by like-minded people in the modelling community.

Good luck!

Dougie & Wink at AMP

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