BUILD LORD NELSON'S HMS VICTORY

Pack 2

Stages 11-20

DeAGOSTINI MODEL SPACE™

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Assembly Guide Pack 2

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Contents

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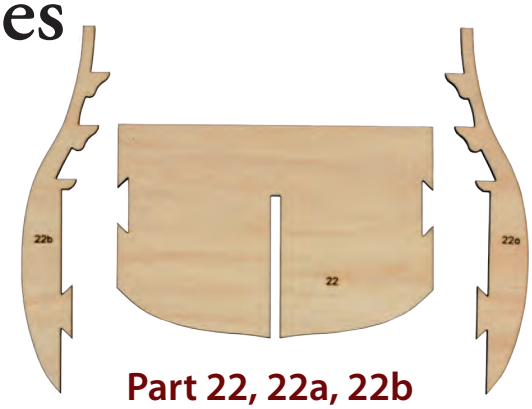
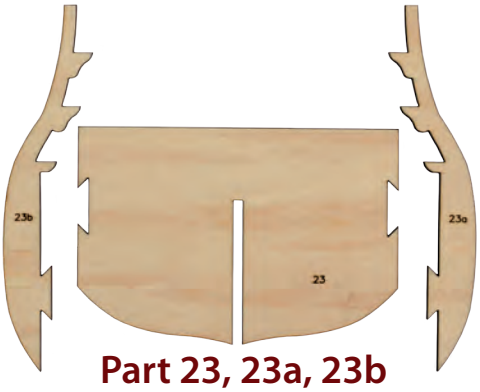
Published in the UK by De Agostini UK Ltd, Battersea Studios 2, 82 Silverthorne Road, London SW8 3HE.
Published in the USA by De Agostini Publishing USA, Inc., 915 Broadway, Suite 609, New York, NY 10010.

Stage 11: Continuing the hull's rib frames

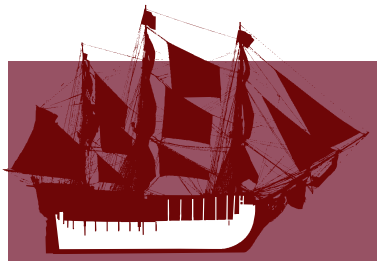
The components provided include six precision laser-cut parts to extend the internal framework of *Victory* toward the stern.



Part 22, 22a, 22b
Rib frame

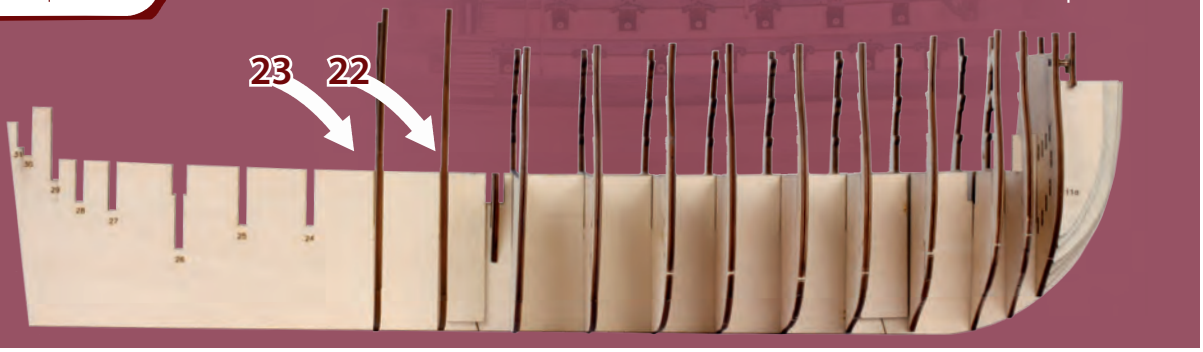


Part 23, 23a, 23b
Rib frame

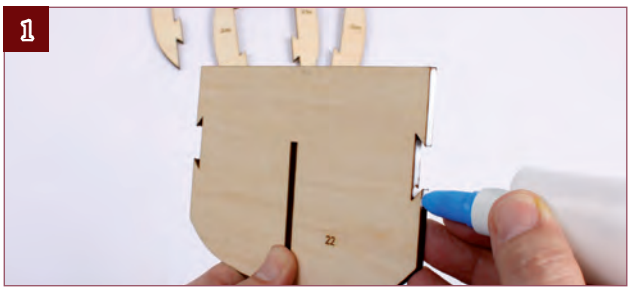


Where the parts fit

Victory's hull is built up around a series of "U"-shaped rib frames that run the full length of the ship, slotting into the internal keel that runs from bow to stern. The parts provided go into the corresponding numbered slots in the rearward section of the keel that extends to the stern of the ship.



1



1. As you have done with previous rib frames, apply glue to the dovetail joints on both sides of the centre sections, Parts 22 and 23.

2

2. Slot the two curved side pieces (a and b) into the centre sections, ensuring that the numbers match.

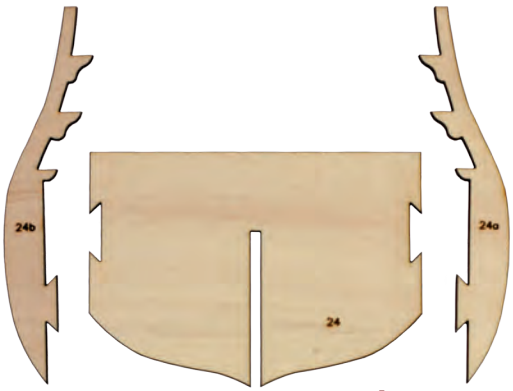
3. Lay the assembled rib frames flat on a non-stick surface until the glue has dried, then put them carefully to the side until you are ready to assemble the hull.

QUICK TIP
You can loosely assemble the frames to see the whole of *Victory*'s hull take shape, but don't glue them at this stage.

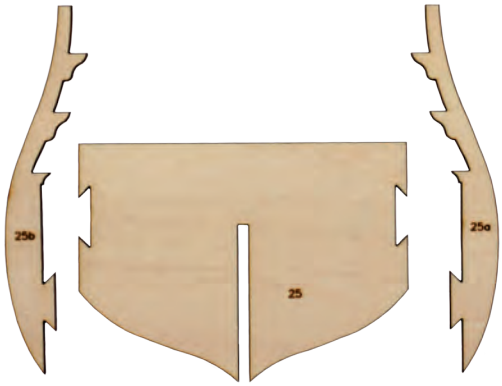
3

Stage 12: Building up the hull's rearward rib frames

The components provided include two more of the rib frames for the hull of HMS *Victory*.



Part 24, 24a, 24b
Rib frame

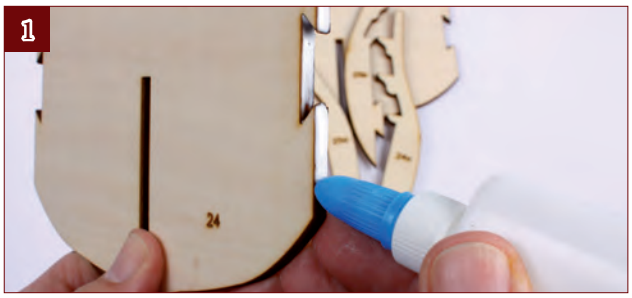


Part 25, 25a, 25b
Rib frame

Where the parts fit

Victory's hull is built up around a series of "U"-shaped rib frames that run the full length of the ship, slotting into the internal keel that runs from bow to stern.

The parts provided include two more of the rib frames, numbers 24 and 25, which slot into the rear section of the hull.



1. Take the central section of rib frame 24 and apply a little glue to the dovetail joints on both sides.

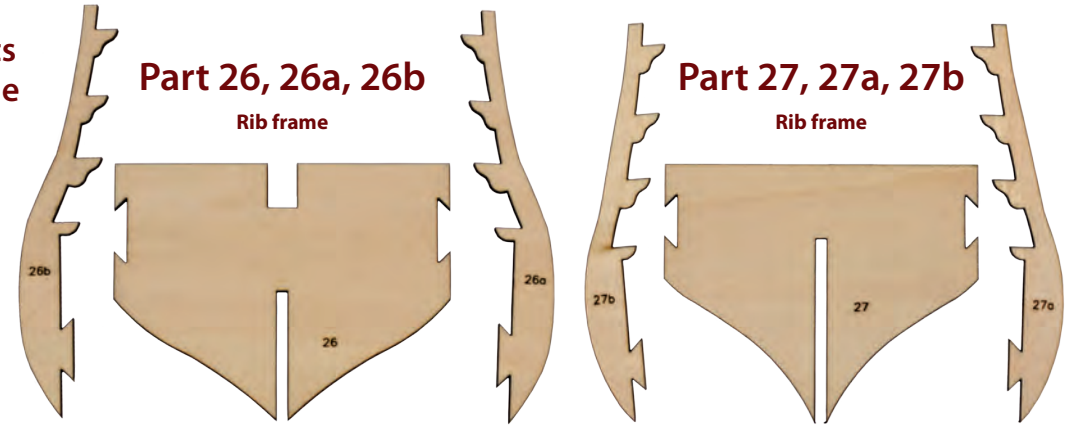
2. Attach the two wing sections (24a and 24b) to complete the rib frame. Ensure that parts are lined up flush.

3. Repeat the process, using rib frame 25 and the wing sections 25a and 25b. Lay the assembled rib sections on a flat surface to dry.

QUICK TIP
You can loosely assemble the frames to see the whole of *Victory*'s hull take shape, but don't glue them at this stage.

Stage 13: Building more rib frames to the rearward section of the keel

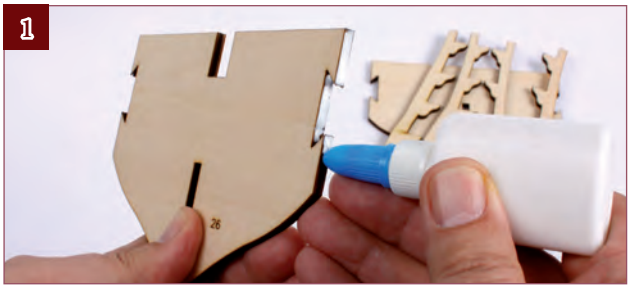
The components provided include six precision laser-cut parts to extend the internal framework of *Victory* toward the stern.



Where the parts fit

Victory's hull is built up around a series of "U"-shaped rib frames that run the full length of the ship, slotting into the internal keel that runs from bow to stern. The parts provided go into the corresponding numbered slots in the rearward section of the keel that extends to the stern of the ship.

1



1. As you have done previously, apply glue to the dovetail joints on both sides of the centre sections of Part 26.

2

2. Slot the two curved side pieces (26a and 26b) into the centre sections, ensuring that the numbers match.

3

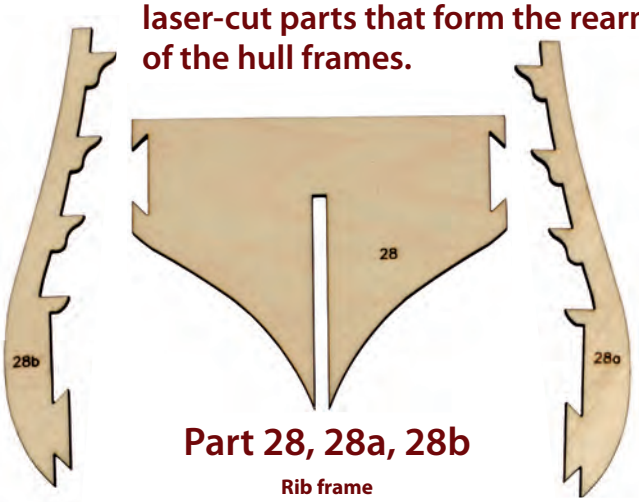
3. Repeat with Parts 27, 27a and 27b. Lay both the assembled rib frames flat on a non-stick surface until the glue has dried, then put them carefully to the side until you are ready to assemble the hull.

QUICK TIP
You can loosely assemble the frames to see the whole of *Victory*'s hull take shape, but don't glue them at this stage.

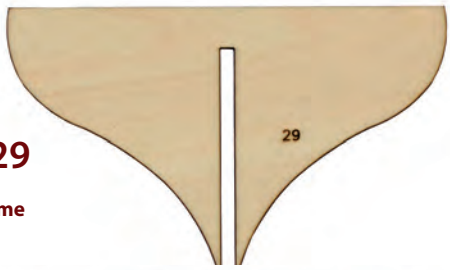
Stage 14: Assembling the rearmost rib and stern frames

This model of one of *Victory*'s deck guns is assembled in a similar way to the one you received in Stage 1.

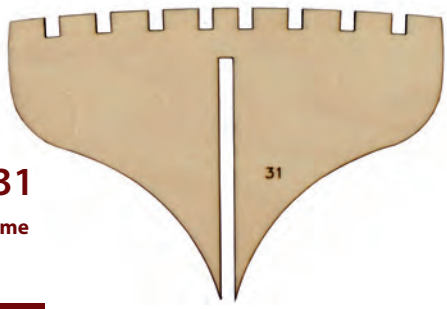
The components provided include five precision laser-cut parts that form the rearmost of the hull frames.



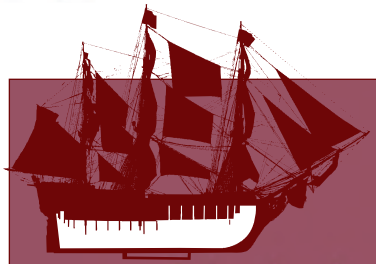
Part 28, 28a, 28b
Rib frame



Part 29
Stern frame

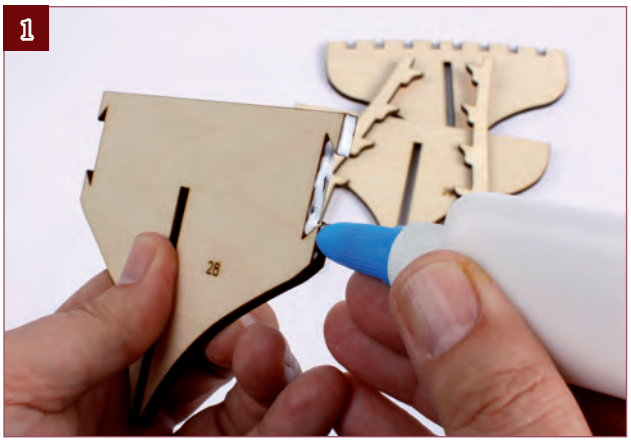


Part 31
Stern frame

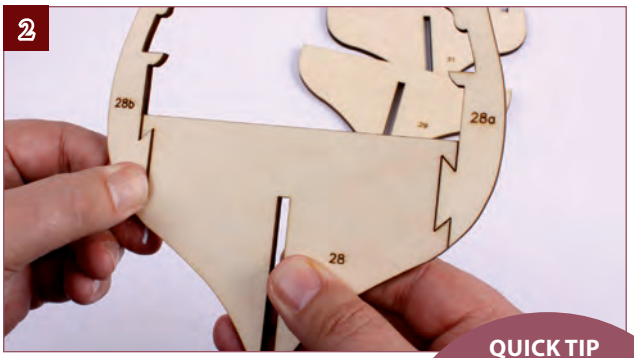


Where the parts fit

Victory's hull is built up around a series of "U"-shaped rib frames that run the full length of the ship, slotting into the internal keel that runs from bow to stern. The parts provided with this stage go into the corresponding numbered slots in the rearward section of the keel that extends to the stern of the ship.



1. As you have done with previous rib frames, apply glue to the dovetail joints on both sides of the centre sections of Part 28.

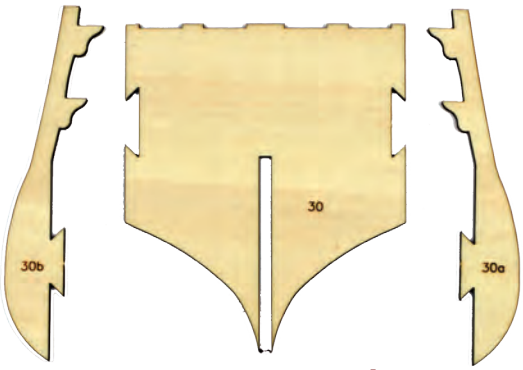


2. Slot the two curved side pieces (28a and 28b) into the centre sections, ensuring that the numbers match. Lay the assembled rib frame flat on a non-stick surface until the glue has dried, then put it carefully to the side.

QUICK TIP
You can loosely assemble the frames to see the whole of *Victory*'s hull take shape, but don't glue them at this stage.

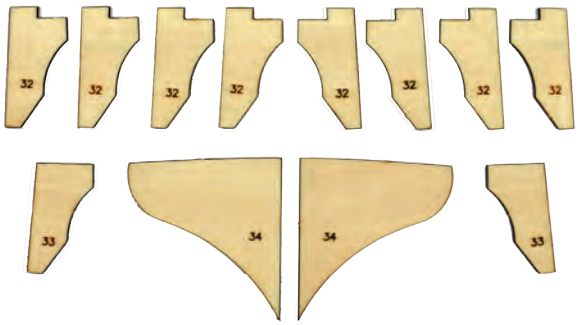
Stage 15: Preparing another rib frame for the stern

The components provided include 15 precision laser-cut parts to construct the stern framework of *Victory*'s hull.



Part 30, 30a, 30b

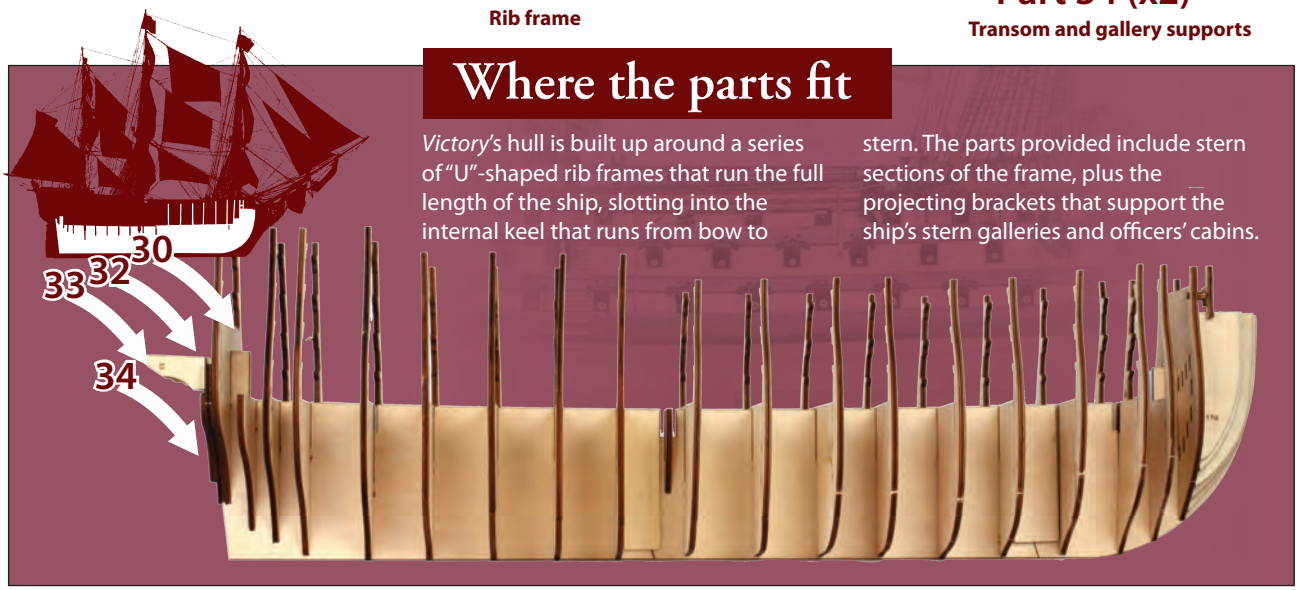
Rib frame



Part 32 (x8), Part 33 (x2), Part 34 (x2)

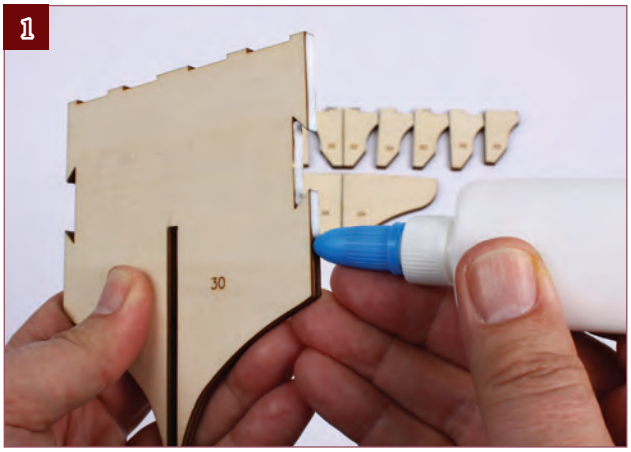
Transom and gallery supports

Where the parts fit



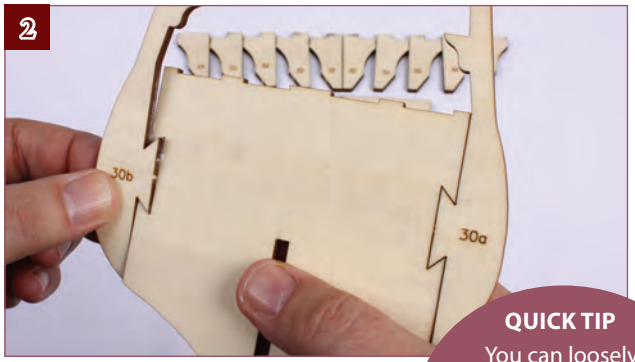
Victory's hull is built up around a series of "U"-shaped rib frames that run the full length of the ship, slotting into the internal keel that runs from bow to stern. The parts provided include stern sections of the frame, plus the projecting brackets that support the ship's stern galleries and officers' cabins.

1



1. As you have done with previous rib frames, apply glue to the dovetail joints on both sides of the centre section of Part 30.

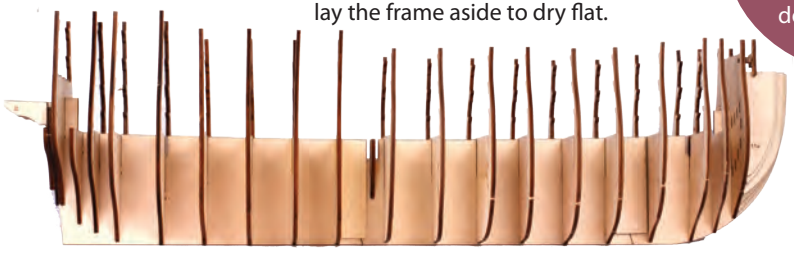
2



2. Slot the two curved side pieces (30a and 30b) into the centre sections, ensuring that the numbers match, then lay the frame aside to dry flat.

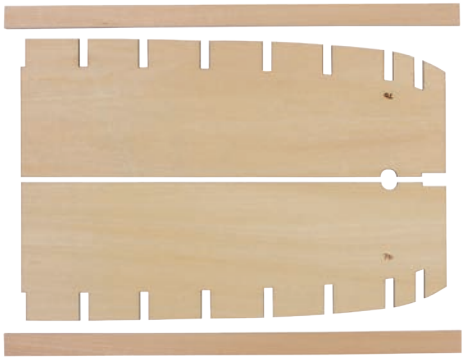
QUICK TIP

You can loosely assemble the frames to see the whole of *Victory*'s hull take shape, but don't glue them at this stage.



Stage 16: Fitting the rib frames and beginning the lower gun deck

The components provided include precision laser-cut parts to make the lower gun deck, a key part of the framework of *Victory*'s hull.



Wooden strips

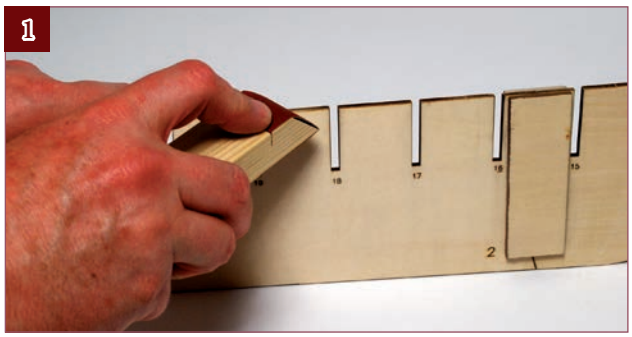
Gun deck support beams:
2 wooden strips 5 x15 mm, 300 mm long
Deck beams:
9 wooden strips 1.5 x 4 mm, 150 mm long

Parts 7b

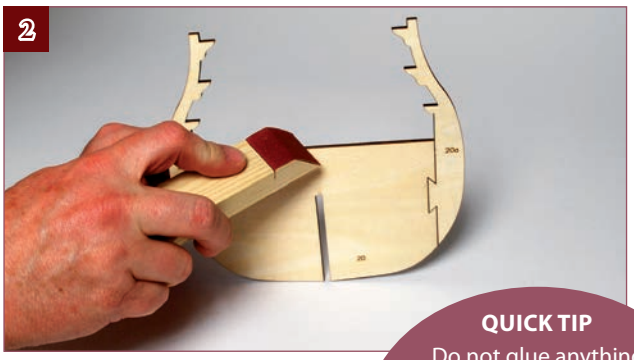
Forward sections of lower gun deck

Where the parts fit

Victory's hull is built up around the "U"-shaped rib frames, onto which the gun decks fit. The lower gun deck sits on the flat part of the rib frames and the top of the false keel, which has a slight curve. The gun deck support beams go on top of the gun deck, flush with the inside of the ribs. The deck beams will be fitted on top, but keep them safely to the side as they are not needed yet.



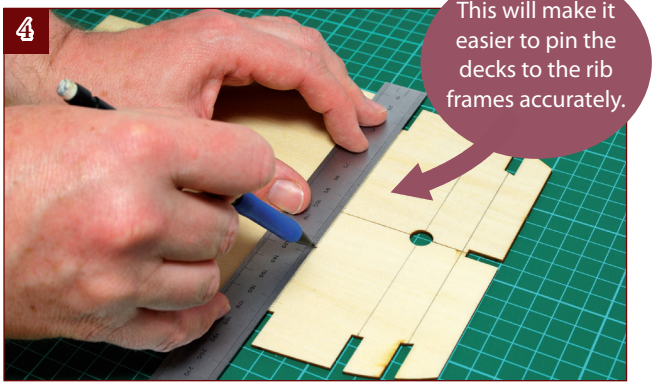
1. Take the keel and check that the top of it is perfectly smooth. Sand off any small nibs left from the laser cutting. Use a sanding block to ensure you keep the surface flat.



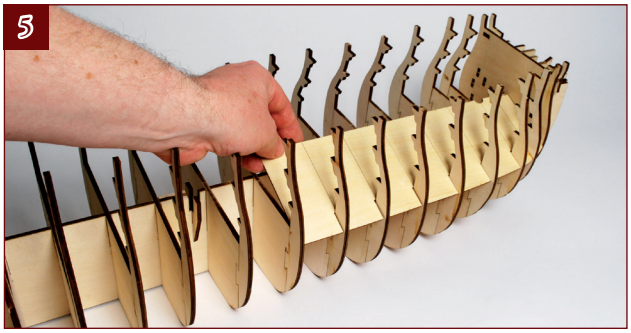
2. Check the tops of the frames, and sand any nibs off them as well.

QUICK TIP
Do not glue anything together yet. The frame will be glued together in the next set of instructions once you have the pieces for the rear half of the lower gun deck.

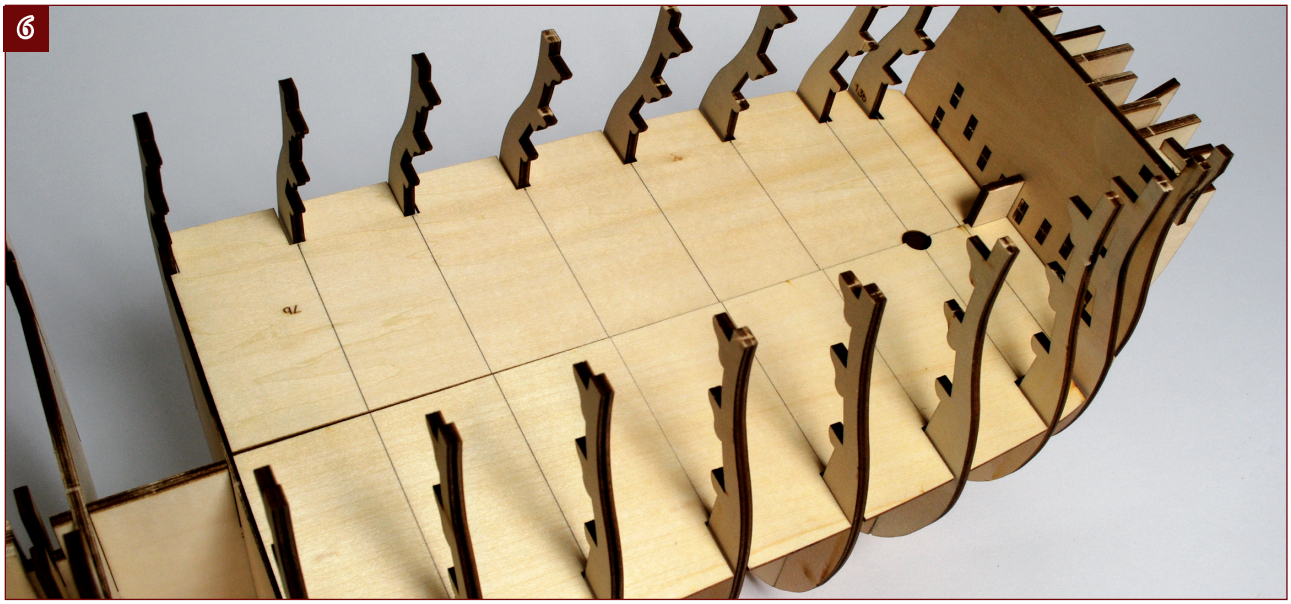
3. Slide in all the frames, but do not glue them. If any of them are a tight fit, file the slots in the keel and the frame until it fits easily. Ensure that the tops of the frames line up exactly with the top of the keel.



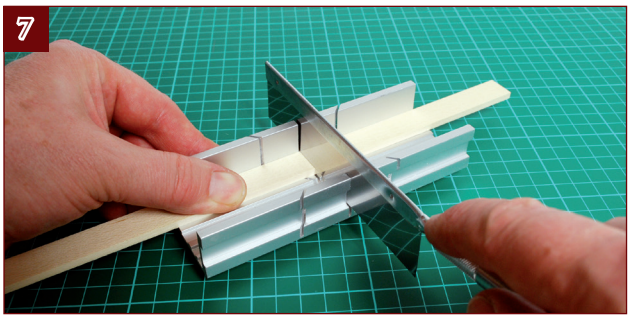
4. The two pieces of the lower gun deck fit on top of the flat sections of the rib frames. Mark lines to indicate where these fall under the deck. Place the two pieces of deck together and draw pencil lines between the centres of the slots for each rib.



5. Take one half of the lower gun deck (7b) and slide it into position. The frames fit into the slots in the outer edge of the deck, and then the centre of the deck can be pushed down onto the top of the keel. At this point you should also glue the mast support (supplied and temporarily fitted in Stage 10) into position, as it will be inaccessible from here on.



6. Repeat with the other piece of deck. Make sure both halves lie flat, touching the tops of the rib frames, and that the joint in the middle runs down the centre of the keel. You may find you need to trim the slots a little to achieve a perfect fit.



7. The two 5 x 15 mm support beams have to be bent into a curve to fit inside the frames. A pliers-type plank bender or an electric bender will not work, because the beams are too thick. The best way to bend one of these beams is to start by making a series of saw cuts across its width. Using a razor saw, cut just over halfway through the beam, being careful not to go too deep. Step 8 shows how to position the cuts.

EXPERT TIP

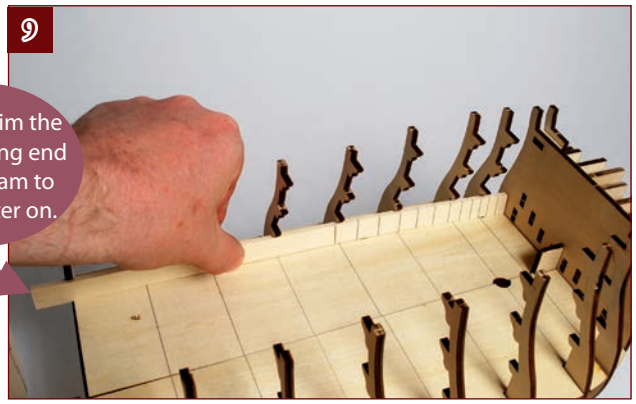
The best tools for making the saw cuts are a razor saw and a mitre block. The mitre block is not absolutely necessary, but it makes the job easier. Not only will it keep the cut square, but if you place a thin piece of scrap wood in the bottom of the block, alongside the beam you are cutting, it can be used as a depth gauge to stop you from cutting too far.

8

QUICK TIP
Avoid placing cuts exactly in line with one of the frames, as you will have to pin the support beam in position with nails.

8. Space the cuts about 5 mm apart at the bow where the bend is the tightest. You can increase the spacing to about 15 mm further back, where the curve gets shallower. Only the forward end of each plank needs cuts, as the aft part is relatively straight.

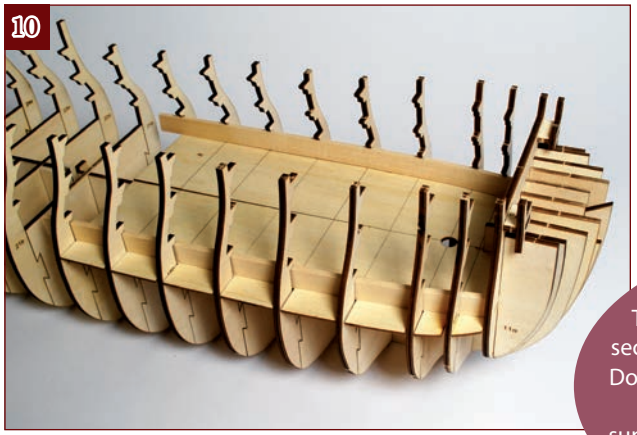
9



You will trim the overhanging end of the beam to length later on.

9. Check that the beam bends to the curve without applying much pressure, and add more cuts or saw them deeper if necessary. Do not glue the beam in place yet.

10



10. Repeat with the other beam. The parts are now ready for assembly but do not fix any of them together yet.

The Cutaway

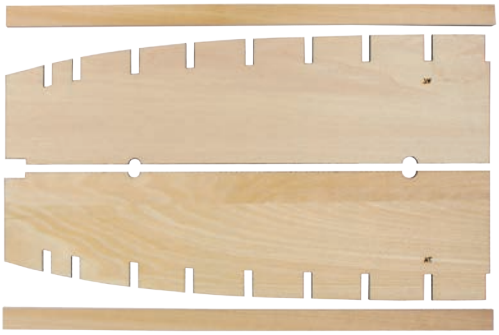
If you have decided to add the cutaway option, you will need to modify the support beam because this would otherwise block the hole in the side of the ship. All you need to do is to cut the beam to leave a short section at the bows, then a gap, followed by another short section running to the middle of the hull. Details on how to do this will be given in the next stage.

The cutaway leaves part of the lower gun deck open. As shown in the next stage, you will need to omit a short section of the support beam so that you can see inside.

QUICK TIP
The next stage will bring you the second halves of the lower gun deck. Do not glue any of the parts together yet as you will need to trim the support beams and possibly the deck to ensure that they fit neatly together.

Stage 17: Completing the lower gun deck

The components provided with this stage include precision laser-cut parts to complete the lower gun deck, a key part of the framework of *Victory*'s hull.



Wooden strips

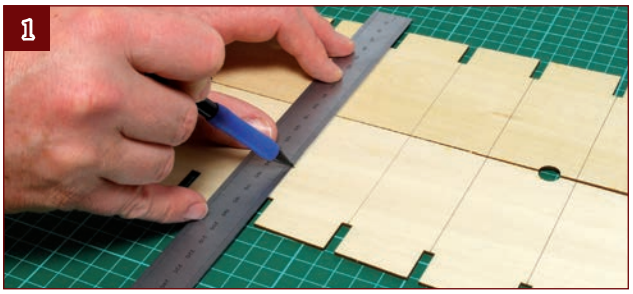
Gun deck support beams:
2 wooden strips 5 x 15 mm, 330 mm long
Deck beams:
9 wooden strips 1.5 x 4 mm, 150 mm long

Parts 7a

Rear sections of the lower gun deck

Where the parts fit

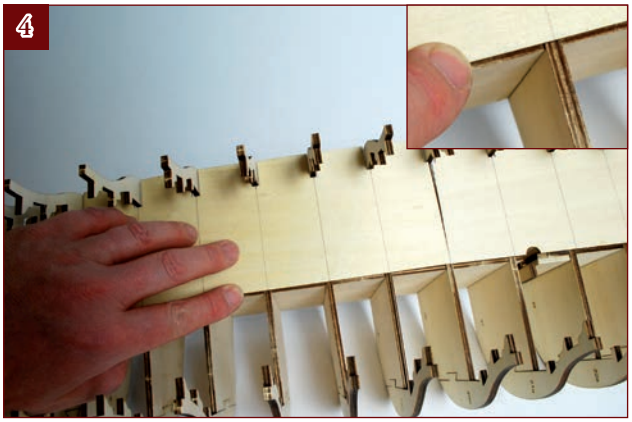
Victory's hull is built up around the "U"-shaped rib frames, onto which the gun decks fit. The parts you have received complete the lower gun deck, plus the gun deck support beams that go on top of it, flush with the inside of the ribs. The deck beams that support the middle deck are fitted above this, spanning the first "brackets" projecting on the insides of the ribs.



1. Place the deck pieces (7a) together, making sure they are aligned. Draw lines between the centres of the slots for each rib. Also draw a line across the beam 15 mm from the narrow (aft) end of the deck.

2. Slide the outer edge of one deck piece into position so that the slots fit over the ribs. Do not glue it at this stage. Push the centre down. The end should line up with the front half of the deck you fitted in the last stage.

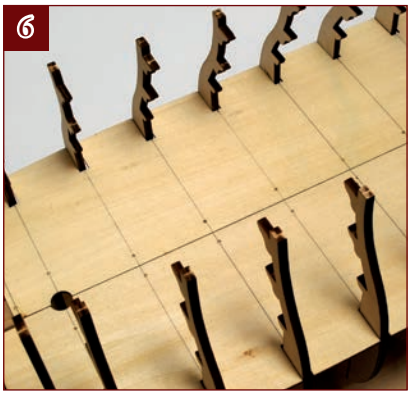
3. Now take the other side of the deck piece and slide it into position. The two halves should align perfectly to create a complete lower gun deck that will add structural rigidity to the framework. If the slots are at all tight or if you have difficulty getting the two halves of the gun deck to line up as shown, you may need to ease the slots a little.



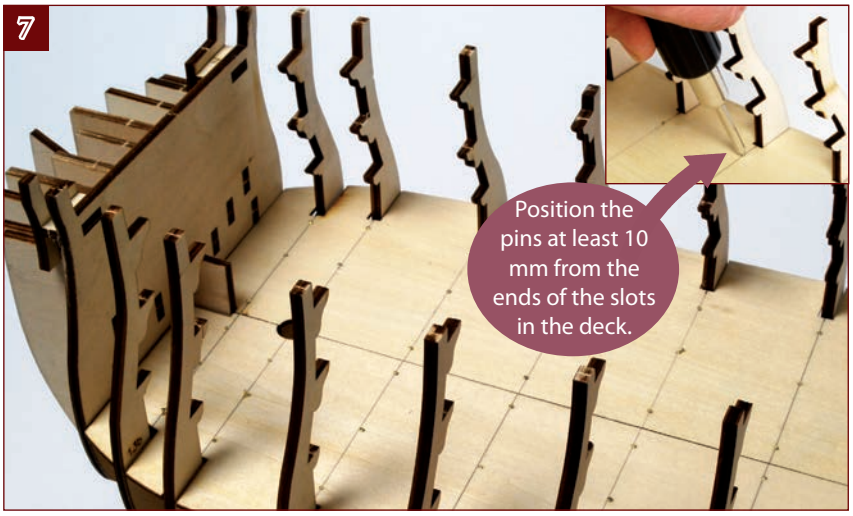
4. Remove both of the left-hand-side decks, and ensure that the centre edges of the remaining right-hand-side decks are exactly aligned along the centre of the keel.

QUICK TIP
Avoid placing your hand directly underneath in case the nail splits the frame and cuts a finger.

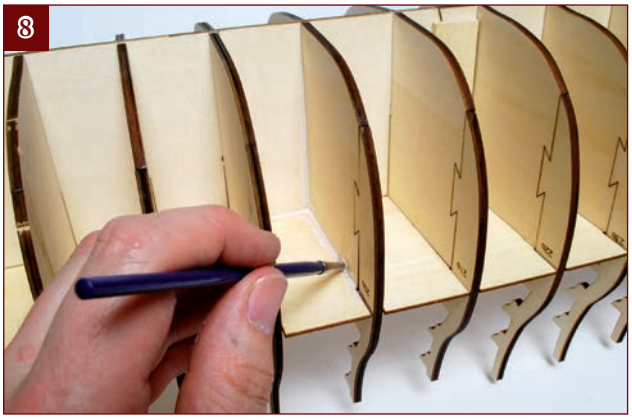
5. Use a nailer to secure the decks in place. Position the pin on the rib centre lines you drew, about 10 mm from the keel. Make sure the edge of the deck remains in the middle of the keel.



6. Repeat the process for the left-hand-side deck pieces, once again pinning them down on the rib lines, about 10 mm from the keel.

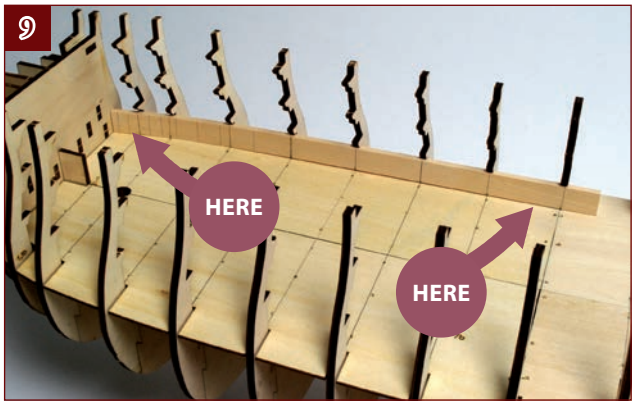


7. Now pin the outboard edges of the deck. Each rib can be moved a little within the slots in the deck. Position it so that it sits centrally in the slot, then drive in the pin at least 10 mm from the edge of the notch in the deck so that it doesn't interfere with later parts. Also drive a third pin into each rib, about halfway between the previous two.



8. Turn the hull over, and place it on a flat surface to ensure that it doesn't twist. Mix some glue with about 30 percent water to make it flow more easily, and paint this into all the joints. Leave the hull upside-down on the flat surface under just enough weight to hold it down. Allow to dry overnight.

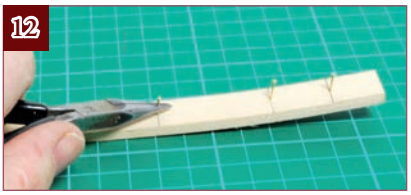
QUICK TIP
A small glass jar or the plastic top of a spray can is ideal for mixing the thinned glue.



9. The next stage is to attach the gun deck support beams. Take the two forward beams, which you bent in Stage 16, and try them in place. To fit the slight upward curve of the deck, these beams may need to be tapered slightly at each end of the bottom edge, where indicated. Use a sanding block to achieve a good fit, removing wood gradually and checking the fit as you go.

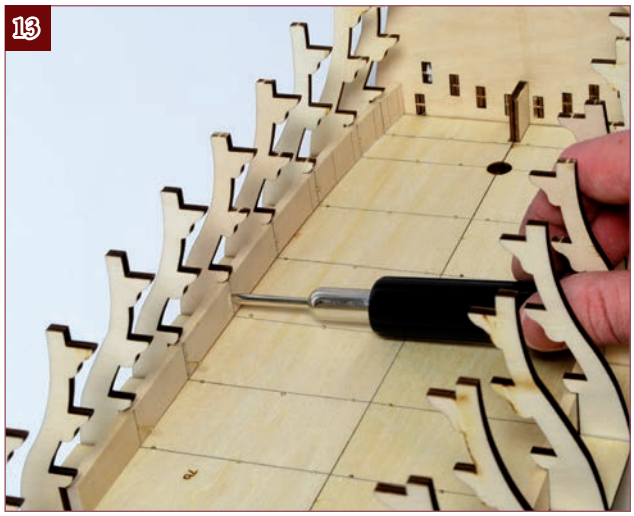
10. Mark the two forward support beams with vertical lines to indicate the centre position of each rib frame in the same way you did on the deck.

11. Mark a line on each forward beam where the front and rear halves of the deck join, then remove the beam and cut it to this length.

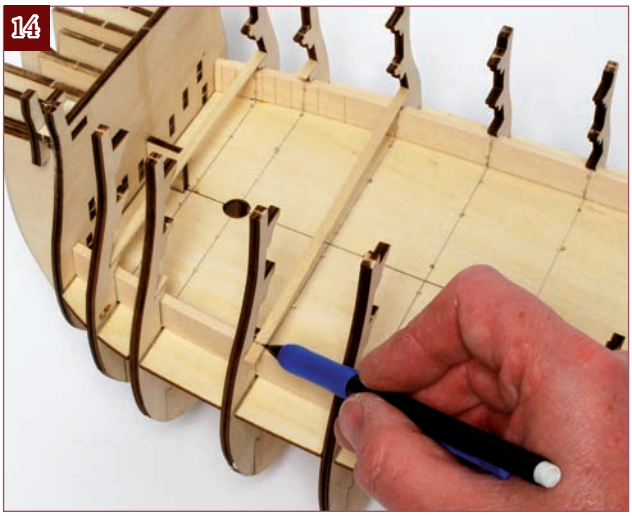


12. To make it easier to drive the nails exactly into the ribs, use a nail and a pair of pliers to make pilot holes at the exact centre of each line drawn on the beams.

The Cutaway
Go to the next page now

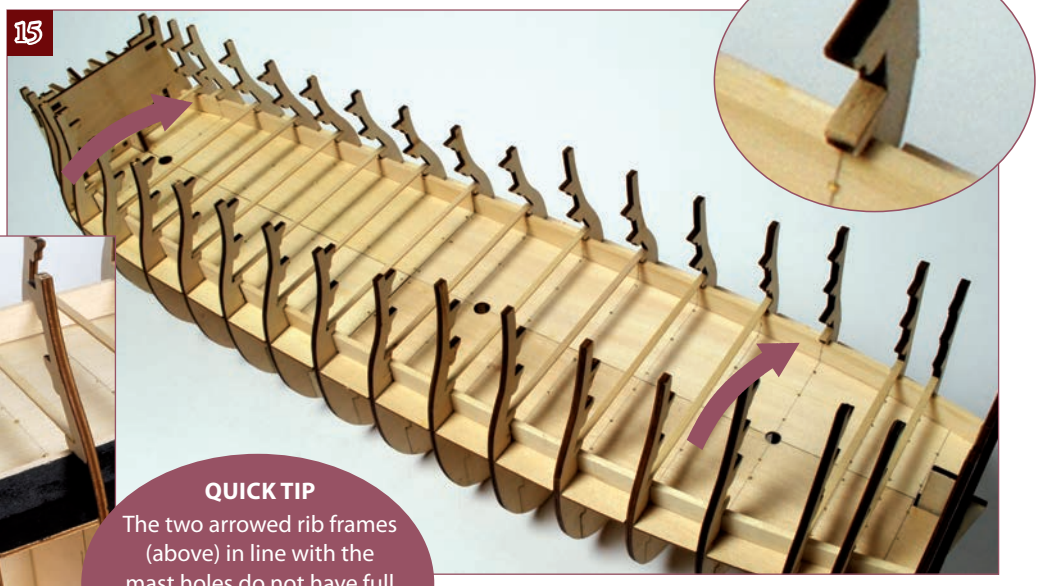


13. Take the two rear support beams supplied with this stage. Bend, taper and trim them to length using the same method as the beams in Stage 16. Apply a little glue at the points of contact between the support beams, ribs and the deck, then use the nailer to pin the beams carefully to the ribs. Paint the saw cuts in the beams with diluted glue to restore their strength.



14. Take the 1.5 x 4 mm deck beams supplied with this stage and Stage 16. Lay them across the rib frames as shown, then mark and cut to length. At the frames that fall in line with mast holes in the deck, cut 10-mm lengths and glue on top of the lowest brackets on the ribs (as shown in the inset picture below right).

15. With the lower gun deck in place, and the support beams and deck beams in position ready to receive the next gun deck, your hull framework will look like this.

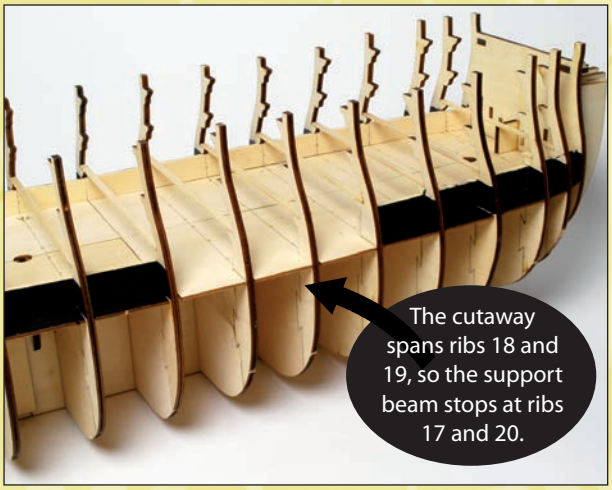


16. Whether you have chosen a natural or a painted finish, paint the outside of the beam, the deck and the sides – but not the edges – of the rib frames black.

QUICK TIP
The two arrowed rib frames (above) in line with the mast holes do not have full deck beams, just short strips to provide a level base for the gun deck.

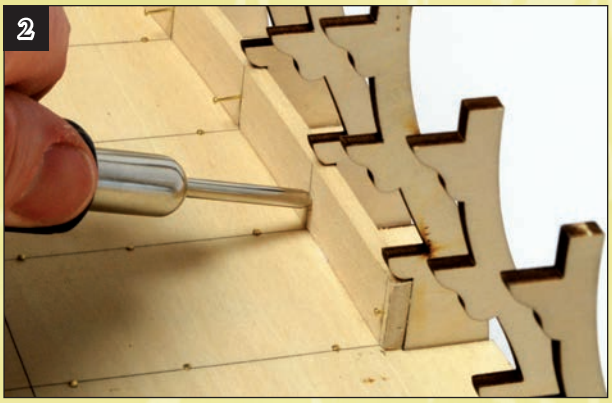
The Cutaway

If you have decided to incorporate the optional cutaway into your model, you need to leave out a short section of the forward right (starboard) gun deck support beam, as explained in the previous stage. You can then carry on with building the hull in the same way as the main steps. The remainder of the cutaway will be created at a later stage.

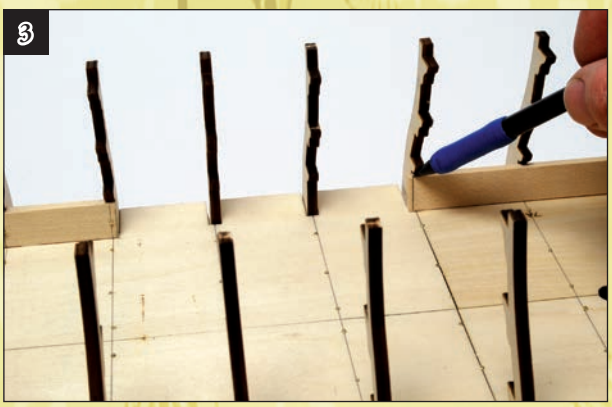


Your completed cutaway should look like this after you have completed this stage and applied black paint as in the final step of the main instructions (Step 16).

1. Ensure that you have bent the forward right deck support beam according to the instructions in Stage 16. Mark the rib positions and make the pilot holes (see step 12 on the previous page). Then put it in position and mark the rear edge of frame 17. Cut the beam to length with a razor saw.

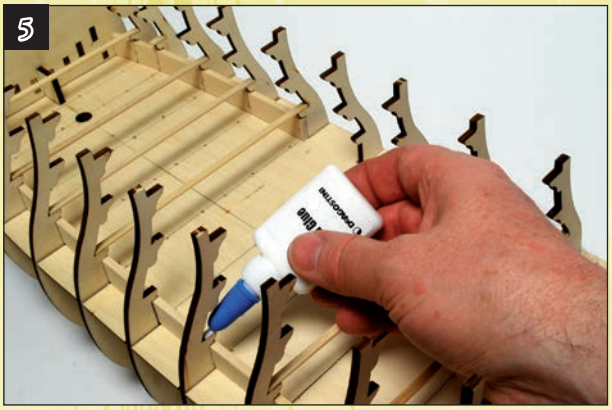


2. Glue and pin the support beam as shown at Step 13. Be very careful when placing the pin in the end rib; the pin is only 2 mm from the end of the beam so it enters into the middle of the rib frame, and there is a danger of splitting the wood if you push too hard or have not previously made a small pilot hole.



3. Take the right rear support beam, ensuring that it has already been bent to shape in the same way as the forward beam in Stage 16. Mark and cut it in line with the forward edge of frame 20, then glue and nail it in position.

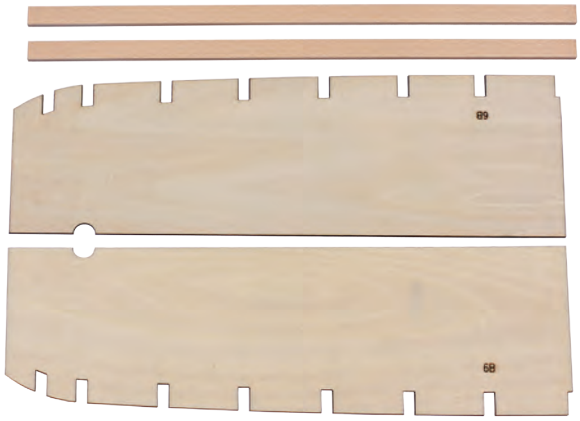
4. Use a sanding block to smooth the ends of the support beams flush with the faces of the ribs at each end.



5. Glue all the deck support beams in place (see Steps 14-15 on the previous page) **except for the beams that span ribs 18 and 19**. These should be cut to length and fitted in place, but **glue them only on the side opposite the cutaway**.

Stage 18: Fitting a stern frame and the transom and gallery supports

The components provided with this stage include laser-cut parts for the middle gun deck (a key section of the framework of *Victory*'s hull), plus another gun.



Wooden strips

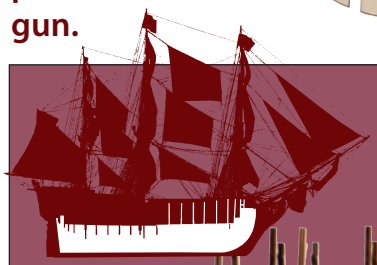
Gun deck support beams: 2 wooden strips 4 x 10 mm, 300 mm long

Parts 6b

Forward sections of the middle gun deck

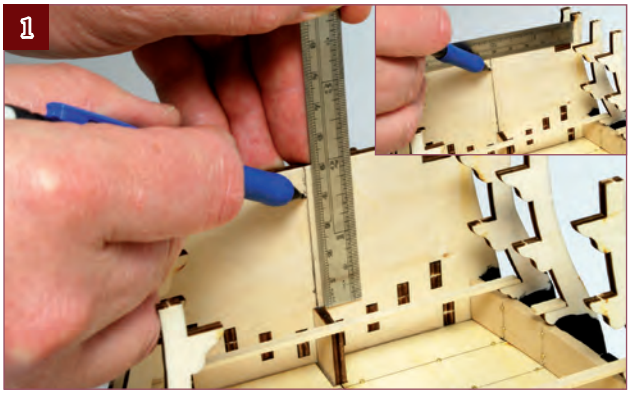
12-pounder

A full set of parts to assemble another of *Victory*'s deck guns, as in Stage 1



Where the parts fit

Victory's hull is built up around the "U"-shaped rib frames, onto which the gun decks fit. The middle gun deck sits on the gun deck support beams that you fitted on top of the lower gun deck. As before, wait until you receive the stern section of this deck, and its support beams, before final assembly.



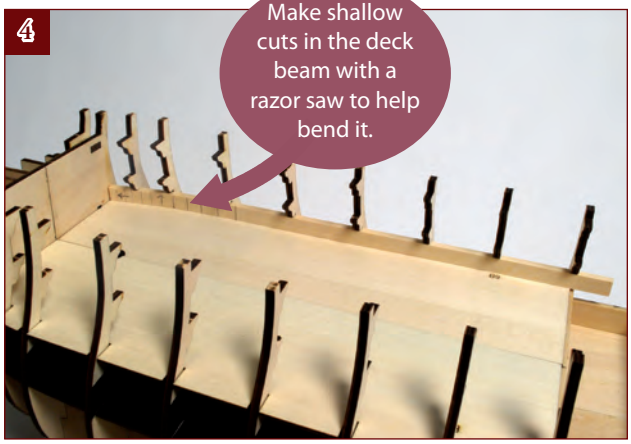
1. To ensure accurate assembly, mark the centre of the bow bulkhead (part 12). Use a ruler to measure the centre point, then draw a pencil line from the false keel to the top of frame 12.

2. To help align the two halves of the deck, measure the width of the hull and place a pencil mark on the centre of the support beam spanning rib frame 20.

QUICK TIP

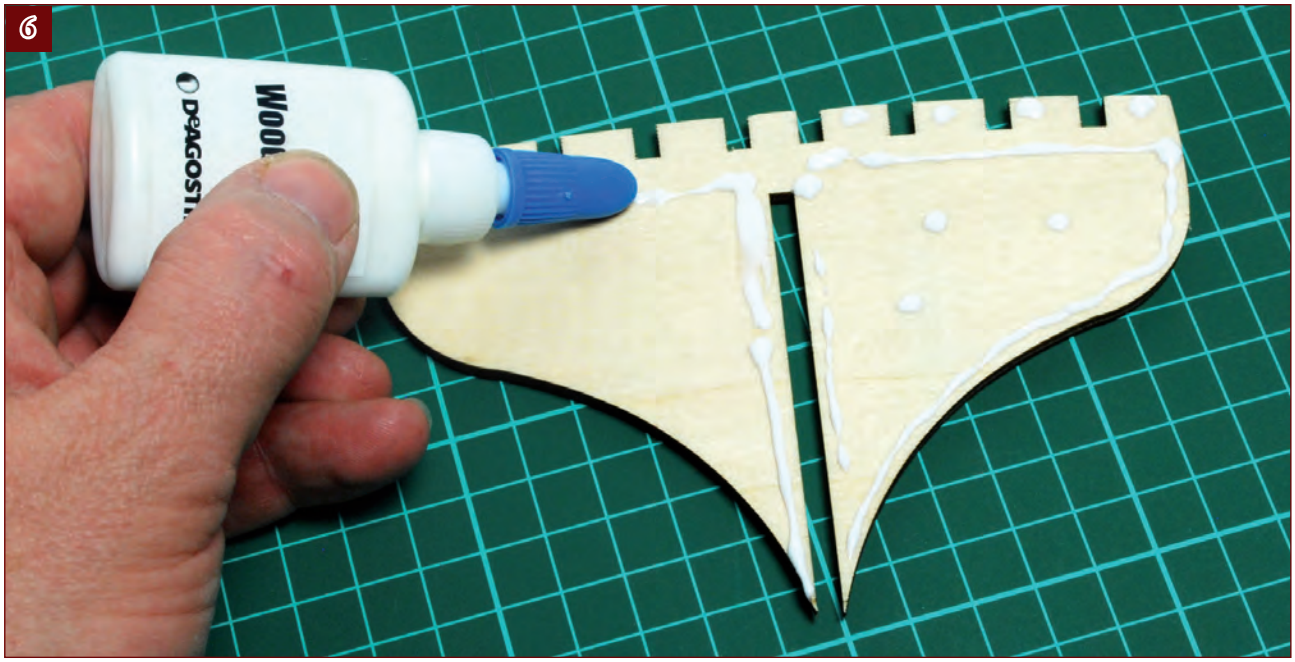
Measure to the outside of the rib frame for better accuracy. Don't measure the support beam itself as it may not be centrally placed within the frame.

3. Place the two pieces of the gun deck in position. You may need to make the slots for the frames slightly deeper to get them to fit perfectly. Sand the front edges if necessary. Make sure the two halves sit flat and that the joint lines up with the centre marks you have just made.



4. The two upper gun deck support beams need to be fitted in a similar way to how the beams below them were fitted. Make shallow saw cuts with a razor saw to help bend the beam around the tighter curve at the bow.

5. Put the support beams into place so they fit under the brackets projecting from the rib frames. Do not force them. You will need to sand the lower edges at the bow and in middle of the hull to allow for the upward curve of the deck.

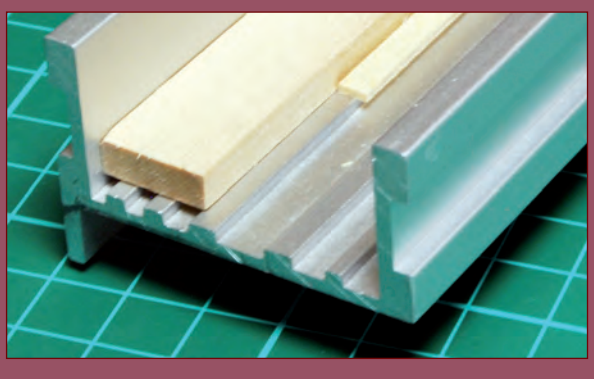


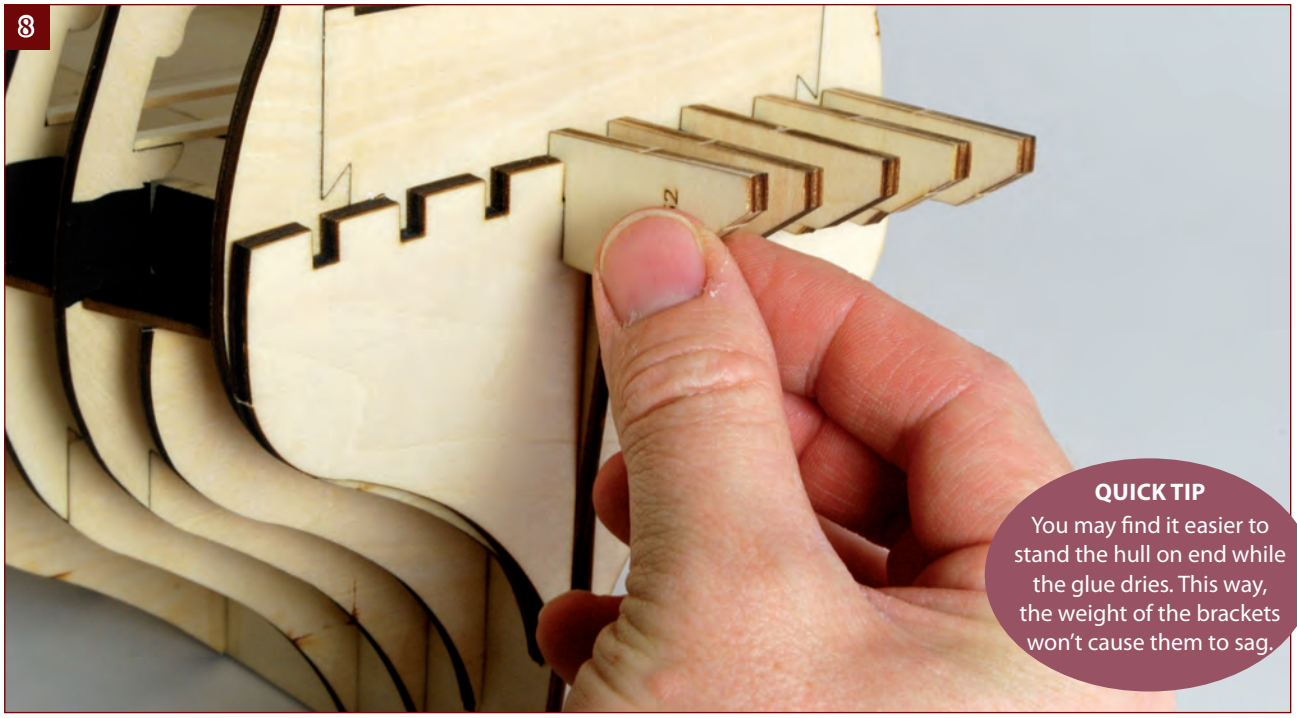
6. Take part 31 and apply glue sparingly around the edges, adding some spots in the middle.

7. Slide part 31 in place, ensuring that it goes all the way down the slot in the false keel. Clamp the sides with clothespins or clamps. Let the glue dry thoroughly.

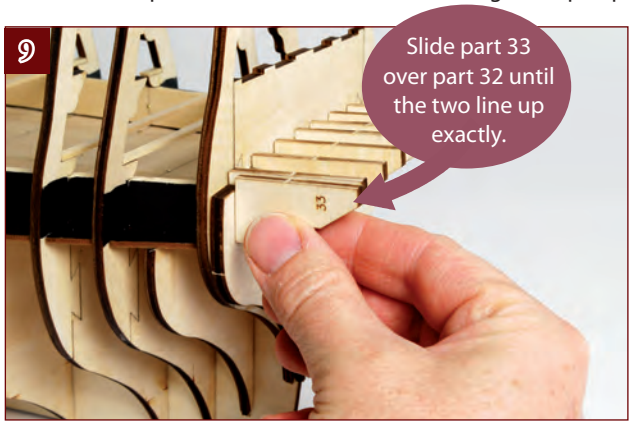
QUICK TIP

The gun deck support beams are thinner than those on the lower gun deck, making it even more important not to saw all the way through. Use a scrap of wood to help you gauge the depth of your cut.

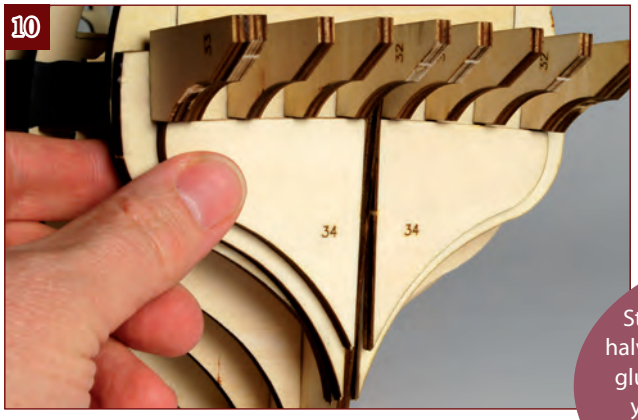




8. Find part 32 (8 parts) and glue them in position in the slots in part 31. Ensure they are fully seated in the slots, and check that the ends line up to form a smooth curve matching the top of part 31. Allow the glue to dry completely.



9. Glue the two parts 33 to the sides of the outermost parts 32, doubling the thickness of the plywood. Hold them together with clothespins while the glue dries.



10. Finally, glue the two parts 34 on top of part 31, flush with the underside of the projecting brackets and in line with the edges of the centre slot.

The Cutaway

If you have decided to add the cutaway option, you will need to modify the middle gun deck in a similar way to what you did with the lower gun deck. All you need to do is to cut the support beam to leave a short section at the bows, then a gap, followed by another short section running to the middle of the hull. Stage 19 will give you details on how to do this.

The cutaway leaves part of the middle gun deck open. As shown in the next stage, you will need to omit a short section of the support beam so that you can see inside.

QUICK TIP
Stage 19 will bring you the second halves of the middle gun deck. Do not glue any of the parts together yet as you will need to trim the support beams and possibly the deck to ensure that they fit neatly together.

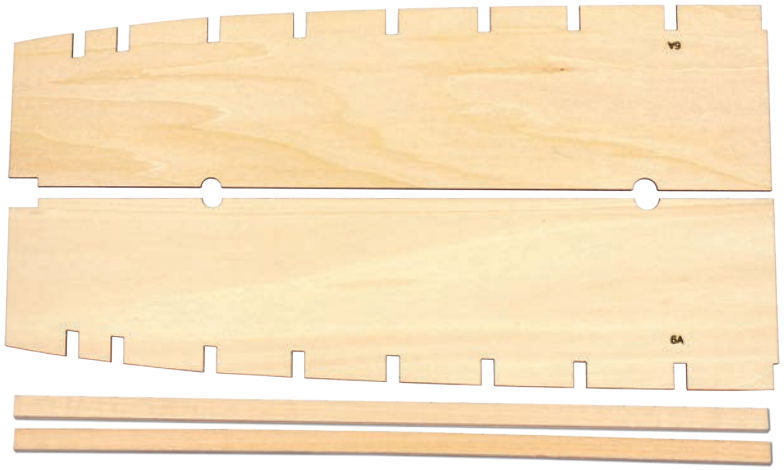
Stage 19: Fitting the middle gun deck

The components with this stage include the parts to complete the middle gun deck of *Victory*'s hull, two turned wooden barrels, and parts to make a stack for them.

Parts 6a
Aft sections of the middle gun deck

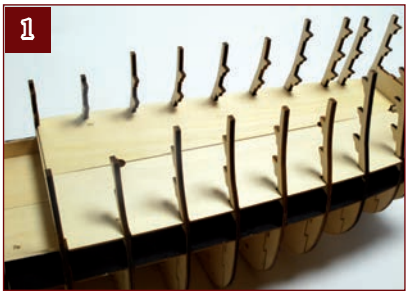
Barrel parts
2 wooden barrels
68 mm wooden strip
thread
5 brass eyelets

Wooden strips
Gun deck support beams:
2 wooden strips 5 x 15 mm, 330 mm long



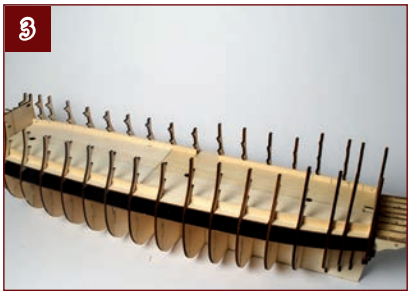
Where the parts fit

Victory's hull is built up around the "U"-shaped rib frames, onto which the gun decks fit. The parts you have received complete the middle gun deck, which sits on the supports you fitted in last stage. You can then fit more gun deck support beams on top of the middle gun deck, inside the ribs.



1. Take the two deck sections (6a), with the part numbers on the underside, and slide them into position, easing the frames into the slots. Check that the centre join aligns with the centre mark and the centre of the false keel.

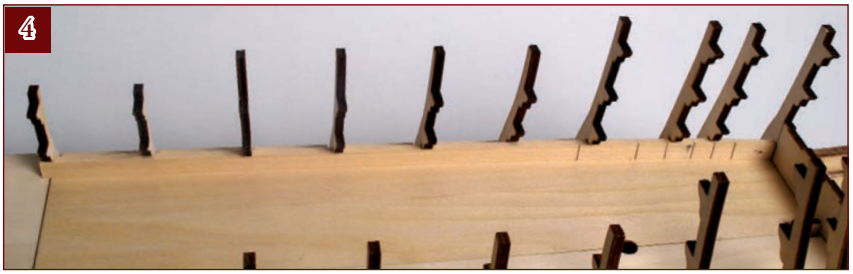
2. Dry-fit the forward sections (6b) that you received last stage to make sure all four sections line up. If necessary, ease them with sandpaper to ensure they fit.



3. Put the forward deck beams in place, mark where the gun decks join, and cut them to length.

Cutaway option

Read the notes on page 74 now

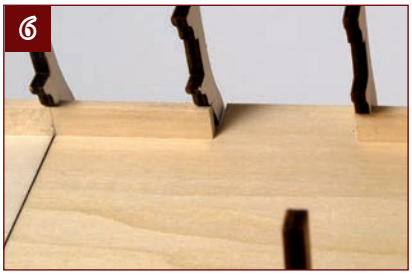


4. Now fit the aft deck beams. Make shallow saw cuts (as in Steps 7, 8 and 9 of Stage 16), so you can curve them to match the hull. Then sand the beams to fit between the deck and the brackets projecting from the ribs, as you did for the lower gun deck beams in Step 9 of Stage 17. The beams should be a snug fit, but do not force them into place as this might distort the ribs.

5. To allow for the entry ports (see Quick Tip), the aft beams on both sides stop at rib frame 22. Mark the beam in line with the front face of frame 22, then cut the beam to length.

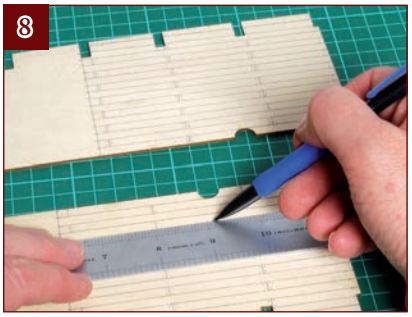
QUICK TIP

HMS *Victory* had entry ports cut into the hull planking on each side. These are on the middle gun deck, so you need to omit a short section of each of the aft support beams between frames 21 and 22. Otherwise, the beams would be visible from outside when looking into the open ports.

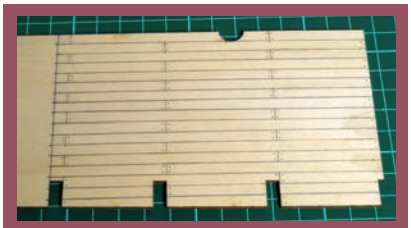


6. Taking the offcut of the beam, mark and cut a length of beam to fit from the aft face of frame 21 to the end of the forward beam. Now repeat Steps 4, 5 and 6 for the other side of the hull.

7. Dry-assemble the decks and support beams to check that they all fit. But before gluing them in place, simulate the planking on the part of the deck visible through the entry ports.

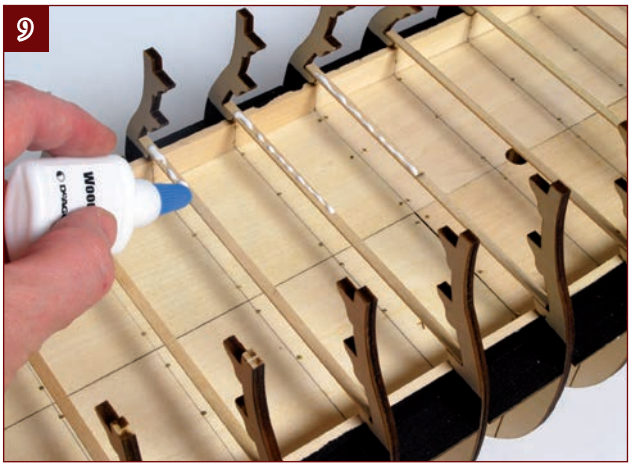


8. Use a pencil and ruler to draw lines 5 mm apart in this area, starting at the centre so that the simulated planks are parallel to the keel line. Add plank ends and nails, as seen in the upper example.

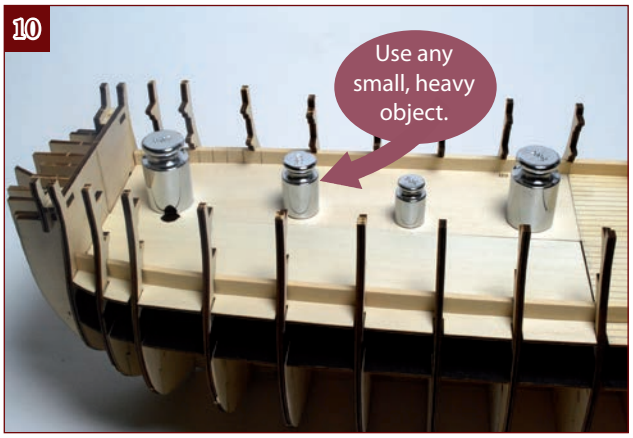


QUICK TIP

After simulating the planking on the gun decks with pencil, seal with matte varnish to protect the finish.



9. You are now ready to fix the deck sections in place. Do this one at a time. Apply glue to the upper faces of the deck support beams where they will meet the deck, and then carefully slide the deck section into place.

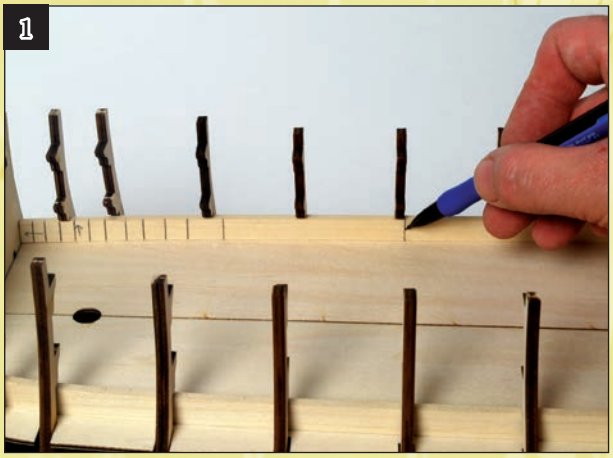


10. Put the other deck sections into position, without glue, to ensure they all line up. Slip the support beams into position to hold down the outer edges, and put small weights on the part you are gluing to hold down the centre. Allow the glue to dry, then repeat for the remaining three deck sections.

The Cutaway

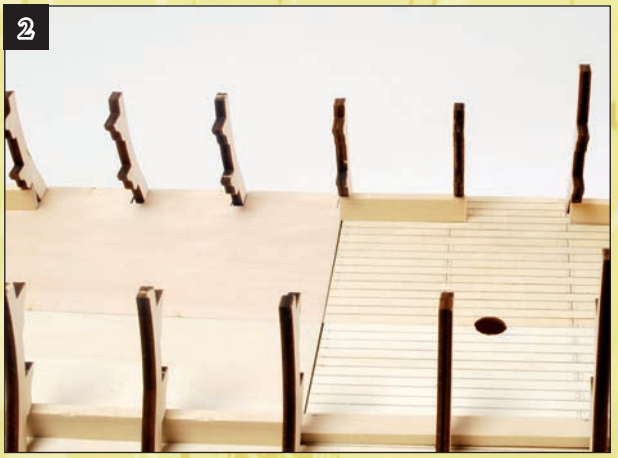
If you are incorporating the optional cutaway into your model, you need to leave out a short section of the forward starboard (right) gun deck support beam, as explained in Stage 18. You can then carry on with building the hull in the same way as the main steps. The remainder of the cutaway will be created at a later stage.

1



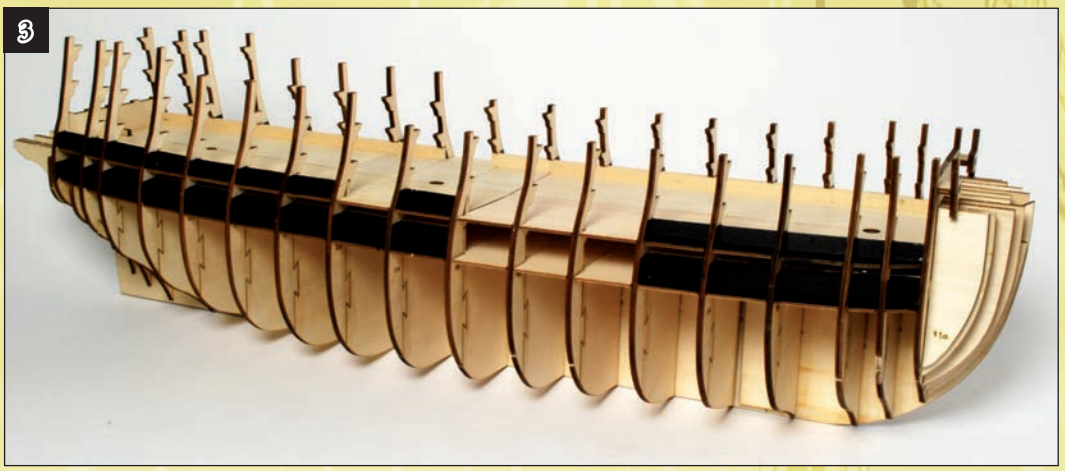
1. At Step 3 in the main sequence, you need to omit part of the forward starboard deck support beam between frames 17 and 20. Place the beam in position, and make a mark in line with the aft face of frame 17. Cut the beam to length.

2



2. At Step 6 in the main sequence, when you cut the small section of deck support beam in front of the entry port, it should span from the aft face of frame 21 to the front face of frame 20.

3

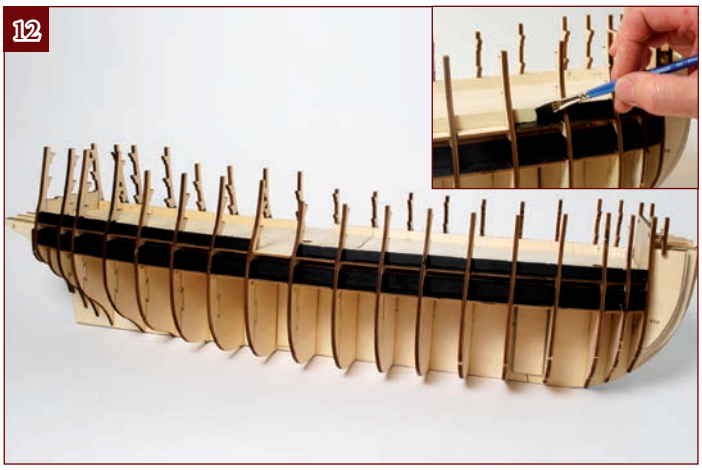


3. Continue with the main instructions from Step 9 onward, gluing the decks and deck beams in place. This is how the cutaway in your framework will look after completing the work covered in this stage.

11

11. When the decks are dry, remove the deck beams, apply glue to the bottom edge and tops where they touch the rib frames, and glue them in place. Paint the saw cuts with diluted glue to restore some strength to the wood.

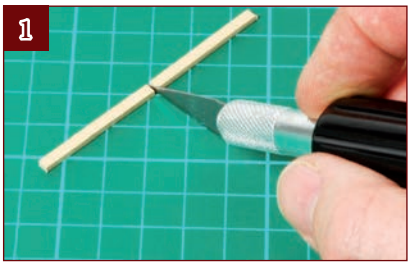
12



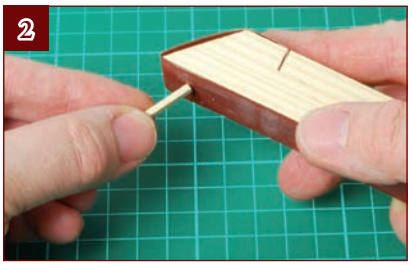
12. Paint the deck beam, deck, and sides of the rib frames black (even if you are building the unpainted version). After completing these steps, the hull framework (without cutaway) should look like this.

Assembling the barrels and skids

Included with this stage are barrels and the parts to make skids, which will be installed on the forecastle of *Victory*. There will be other stacks of barrels delivered to place elsewhere on the model.



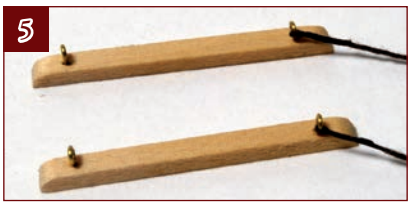
1. Take the strip of wood provided and cut it exactly in half to make two pieces 34 mm long.



2. Sand off one flat side of each end to produce the shape in Step 3. Repeat for the other skid.

3. Drill a hole 4 mm from each end. The hole needs to be the same size as the eyelet shaft, which is about 0.5 mm. Repeat for the other skid. If you are opting for the painted finish, paint the skids black at this stage.

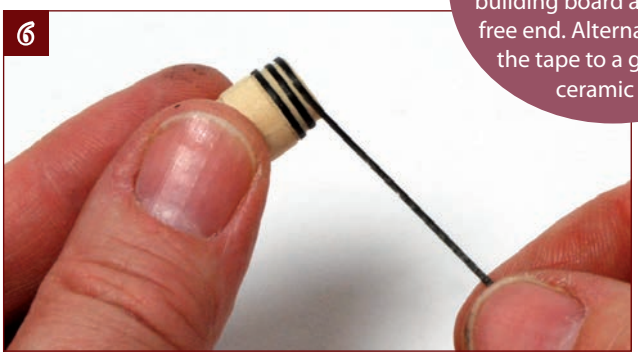
4. Cut the thread in half, feed about 5 mm through the eye of an eyelet, and fold it back on itself. Place a drop of glue on the thread and roll it between your fingers. This will glue the thread to itself, simulating a splice. Repeat for the second thread.



5. Use superglue to glue the threaded eyelets into one end of each skid, and another eyelet into the other end. Ensure that the eyes are at right angles to the beams.

QUICK TIP

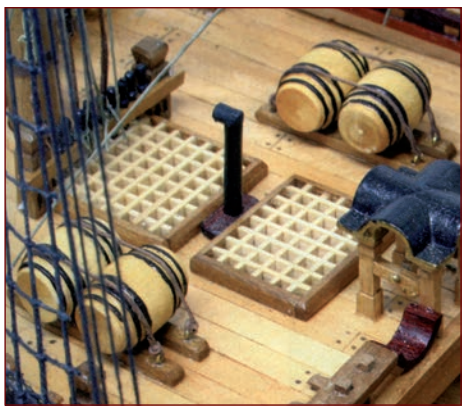
When painting a strip of micro masking tape, stick one end to the edge of a building board and hold the free end. Alternatively, stick the tape to a glass jar or ceramic tile.



6. The barrels need three black hoops at each end. It is possible to paint these by hand but you can achieve a neater finish with 1-mm micro masking tape (also known as "fine line tape"), which you can get from art suppliers. Paint strips of tape, about 60 mm long, with black paint. When the paint is dry, wrap the tape around the barrels and cut off any excess.

7. Now attach the barrels to the skids. First, glue the barrels together with a spot of glue, and leave to dry. Then glue the barrels to the skids, as shown above. Now pull the thread taut over the barrels, feed the end through the opposing eyelet on each skid, and tie off.

If you opted for the painted version, your stack of barrels will look like this (left).



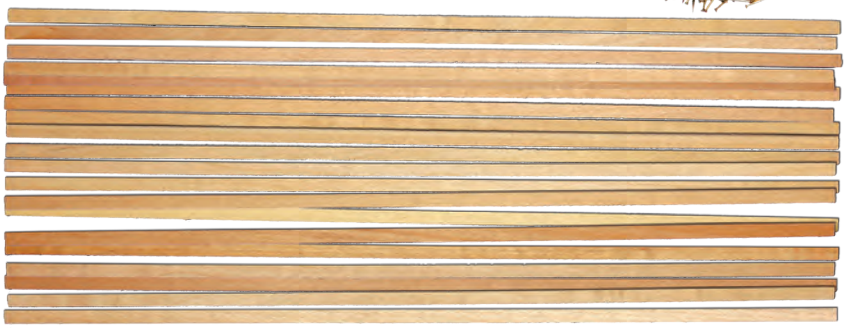
The finished stack of barrels will go on the forecastle deck (right), so put it aside for now.

Stage 20: Completing the hull frame

The components provided with this stage include the first strips of wood for planking *Victory*'s hull.

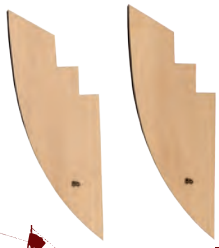
Wooden strips

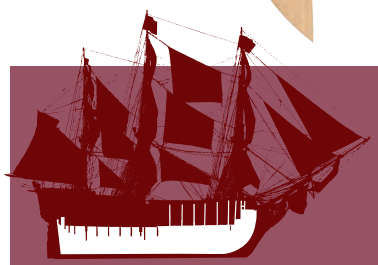
20 wooden strips 5 x 2 mm, 300 mm long, for hull planking, plus fixing pins



Parts 8b

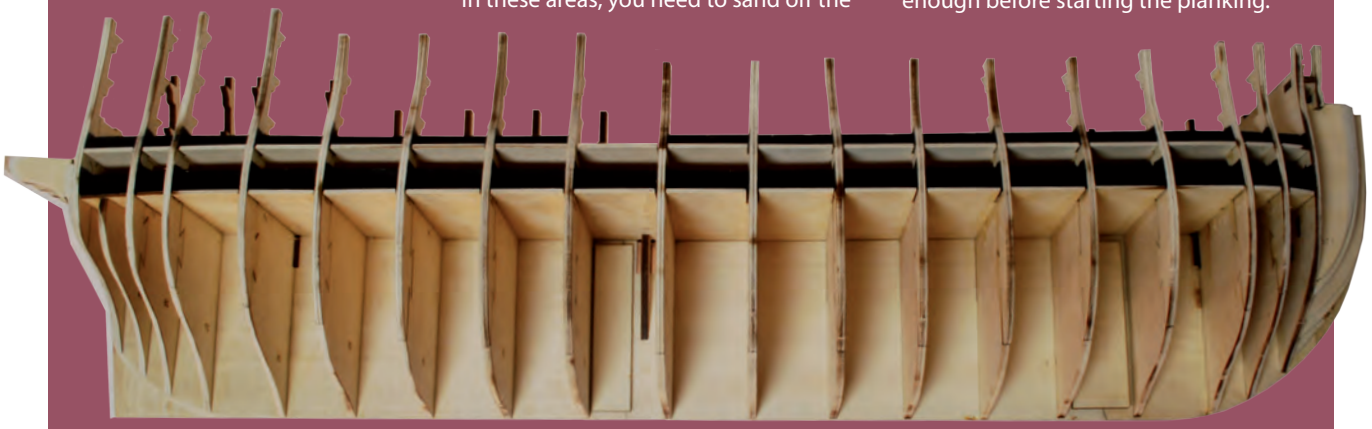
Bow former fillets to reinforce the bow of the false keel





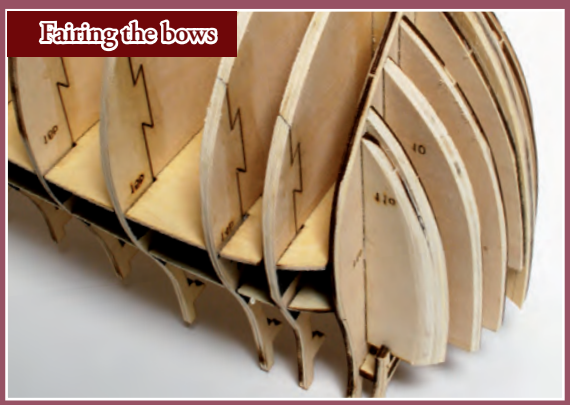
Fairing the hull

Once you've attached the bow former fillets (Steps 1-3), *Victory*'s hull frame is complete. The next step is to prepare the hull for planking. This process, known as "fairing," means shaping the edges of the frames to support the planks properly. This is particularly important at the stern and bow, where the frames start as a series of square steps (left), rather than a smooth curve. In these areas, you need to sand off the edges so that they follow the desired shape. You also need to reduce the width of the false keel at the stern, where it projects beyond the rib frames. Work methodically and check the shape frequently. This can be time-consuming, but it is very important in order to achieve a smooth finish on your hull. A common mistake among first-time modellers is not fairing the frames enough before starting the planking.



Fairing the stern

Fairing the bows



Reinforcing the bow

1. Take the bow former fillets (8b) and dry-fit them in the space between the false keel and the bow formers (8). These pieces will help to support the planking around the bow area and provide a firm base for the external keel. The front and top of the parts 8b should be flush with the false keel.

2. Remove the bow former fillets. Apply a thin coating of glue to both sides of the parts and quickly reinsert them into the slots before the glue starts to dry.

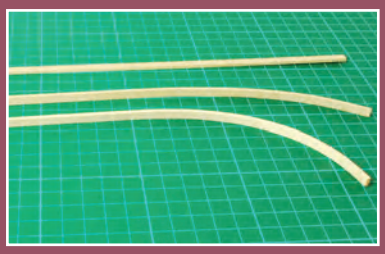
3. Use clamps or clothespins to hold the parts securely while the glue sets. Allow the glue to dry overnight before proceeding.

Expert tip: Curved planking

Laying the planking
Use these pictures as a guide to fairing the hull frames. They show the direction of the planks at the critical areas where they curve around the bow and stern. Note at the stern, the planking continues up over the transom and back over the false keel. Try to sand in the same direction as the planking, and make up some bent planks (see below) to use for checking the fit.

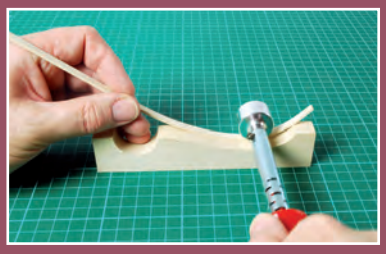
You have already had practice bending planks for *Victory*'s launch, and planking the hull works on the same principle, just on a larger scale. The strips are thicker than those of the launch, so although it's possible to bend them with steam, it is quite hard work. However, you can use a pliers-type plank bender/cutter (right) without the risk of snapping the material. Alternatively, as there is quite a lot of planking to do, it may be worth investing in an electric plank bender.

A pliers-type bender/cutter has a thin blade on the side and a soft cushion on the other. You can insert a piece of wood as a stop, ensuring you cut to the same depth every time and don't risk snapping the plank.



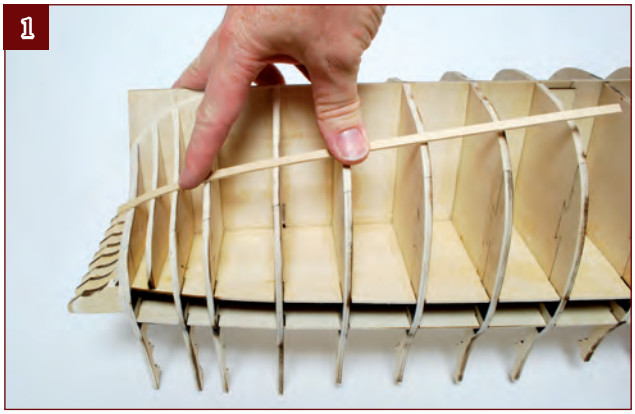
Referring to the pictures of *Victory*'s hull (above), prepare some planks with various degrees of bend. You can use these to check whether the plank will fit over the frames in a smooth curve.

To use a pliers-type plank bender, squeeze it gently to form a series of creases on the inside of the bend, without cutting right through. The closer you place the creases, the tighter the wood will bend.

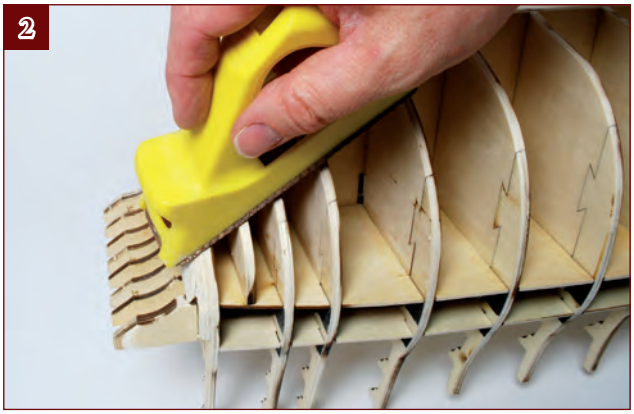


If you are using an electric plank bender, soak the planks in water for 20 minutes beforehand. Press the planks over the shaped wooden former, forming tight curves in stages, rather than in one go.

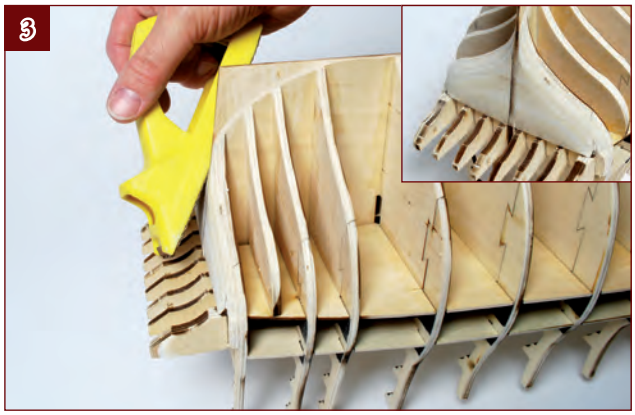
Sanding the frames



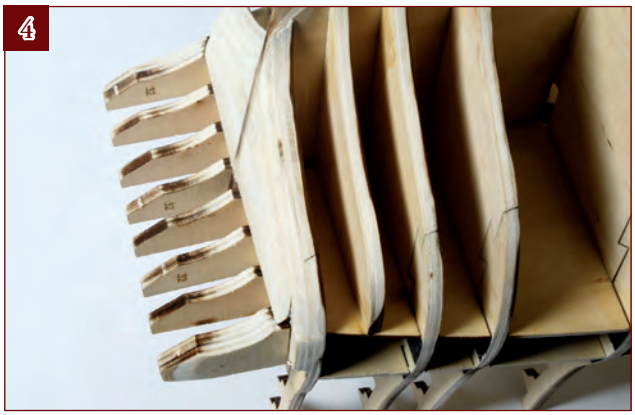
1. The first step in fairing *Victory*'s hull frame is to try some bent planks to test the curvature of the hull (see Expert Tip on the previous page). You will need to use these throughout the fairing process to keep checking the fit.



2. Take a small shaper plane, file, or coarse sandpaper and sanding block, and begin shaping the hull. Sand the edges of several rib frames at once, aiming to produce a smooth curve running along the line of the eventual planking.



3. Sand the transom so that rib frame 34 follows the line of the stern post. Then sand the stern frames to a smooth radius.

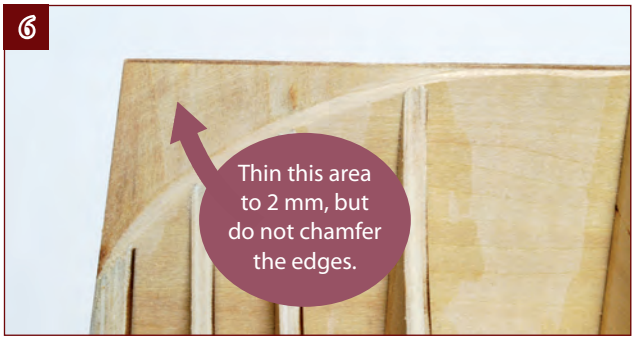


4. There is a concave section beneath where the gallery supports project from the stern. Use a rolled-up piece of sandpaper to do this area. Also, blend the roots of the supports where they meet frame 34, and the sides of frame 34 that will support the gallery. Use a curved plank to check the fit.

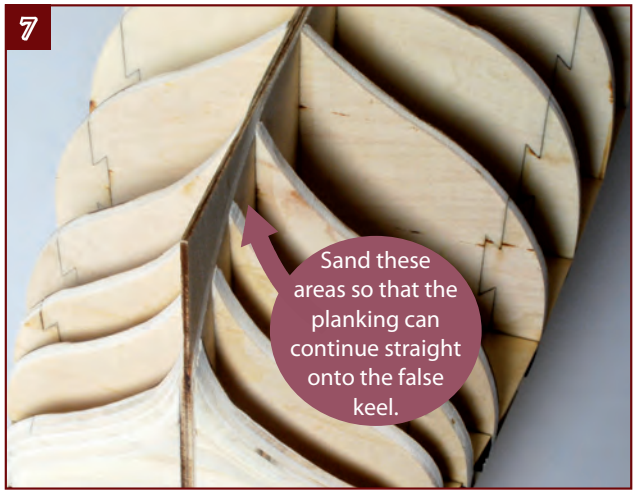
5. Work methodically, fairing every frame from top to bottom, including the parts of the frames around the decking, including above the deck. Do not overlook the edges of the decks if they project beyond the frames. The planking on the centre section of the hull runs almost straight, so this area is unlikely to require much fairing.

QUICK TIP: TROUBLESHOOTING

If you accidentally sand off too much, or if you find that a rib frame needs building up in order for the planks to curve smoothly and sit squarely on the edge, you will need to build up the frame. Cut a strip of card stock and glue it to the edge of the frame using superglue or wood glue (below left). Then soak the card stock strip in more superglue (below right) and wait for it to harden completely. Finally, sand it back to the required shape.



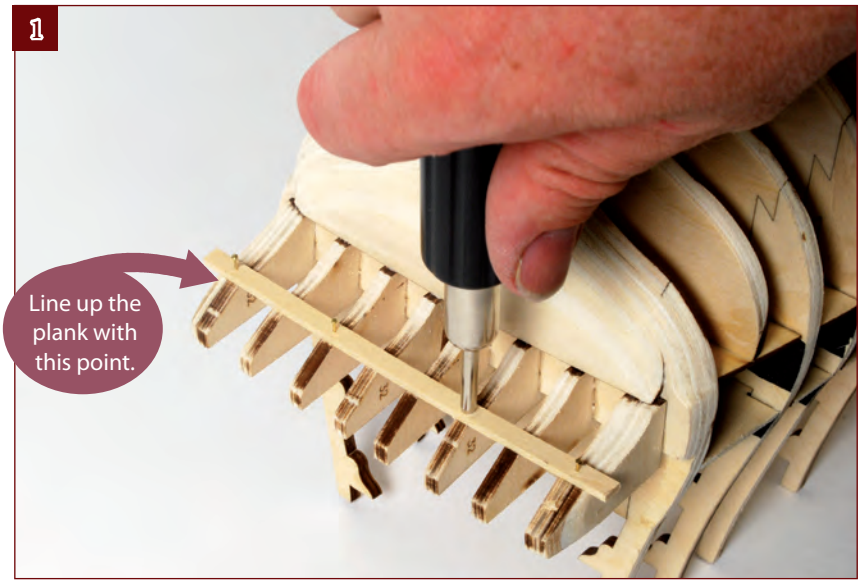
6. The triangular, flat section of the false keel at the stern needs to be thinned to 2mm. This is so that the planking can continue over it, making the total thickness at this point 6mm. Make sure you do not chamfer the edge of the false keel. It must remain flat because the external keel and sternpost will be glued to it at a later stage.



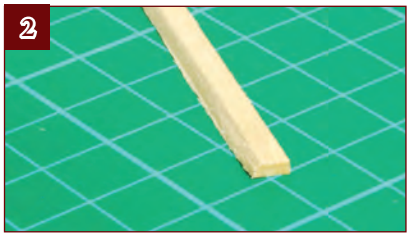
7. Smooth the area where the frames meet the false keel.

Planking the gallery supports

Before planking the main hull, plank the underside of the gallery supports that project from the stern.

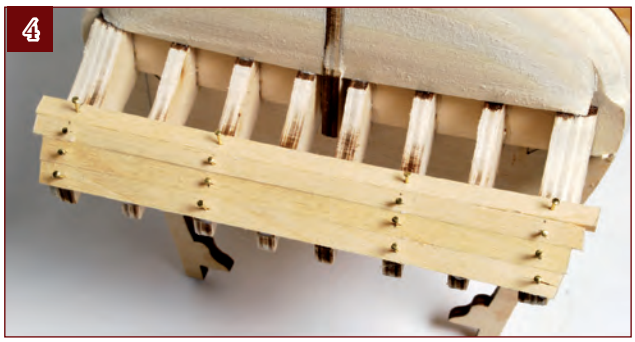


1. Cut a piece of planking long enough to hang over both sides of the gallery supports by 5 to 10 mm. Lay it across the concave part of the supports so its rear edge is in line with the point where the supports start to slope. Apply glue and insert four pins, as shown. Do not insert the pins fully.



2. Cut a second plank and position it on the sloping section of the support, as below. You will need to chamfer one edge of the plank as shown above so that it lies flush against the first plank.

3. Glue and then pin the second plank in place, in a similar way to the first.



4. Continue planking the sloping section of the gallery support as far as the rear corner. Do not plank the vertical ends of the supports, as there is a separate piece that goes here, which you will fit a little later on.

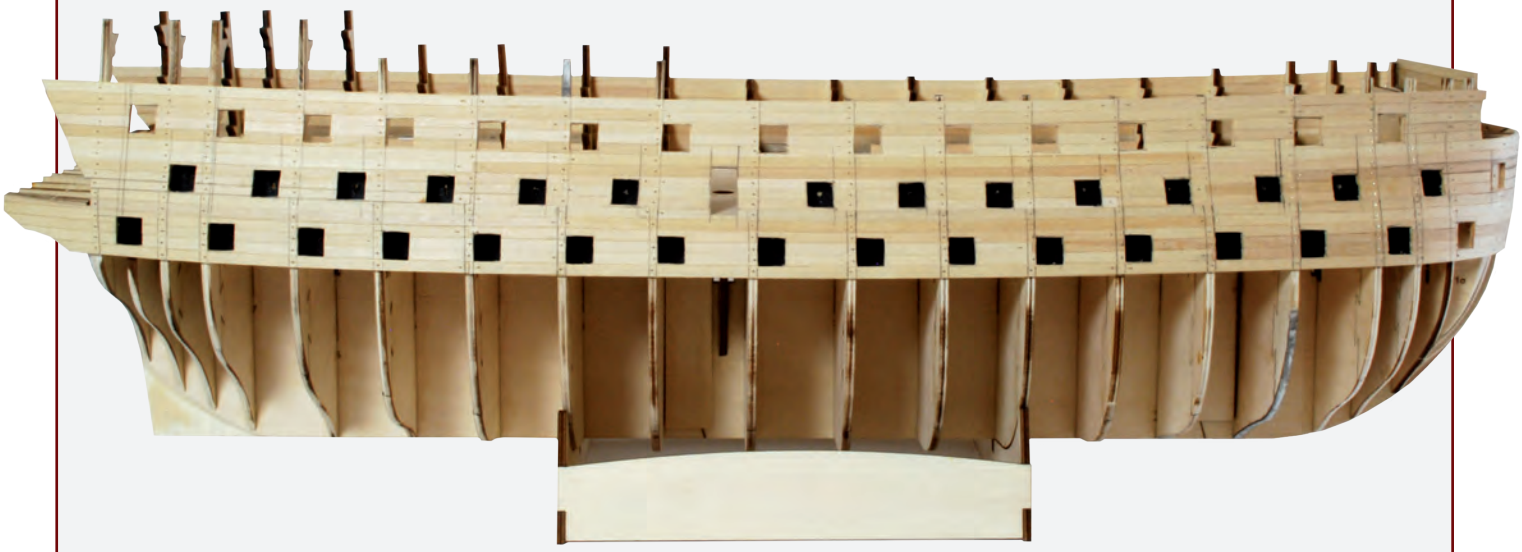
5. Now plank the curved section. The final plank that goes against the transom will need shaping to fit. Do not worry if there is a small gap, as this will be covered by the main hull planking. Leave the assembly to dry thoroughly.

BUILD LORD NELSON'S HMS VICTORY

Coming in Pack 3

Stages 21-30 complete most of the upper planking, and include cutting the gun ports. You'll also assemble a building stand to help keep the model stable.

Complete the upper hull and cut the gun ports



Extend the planking

Assemble the building stand

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