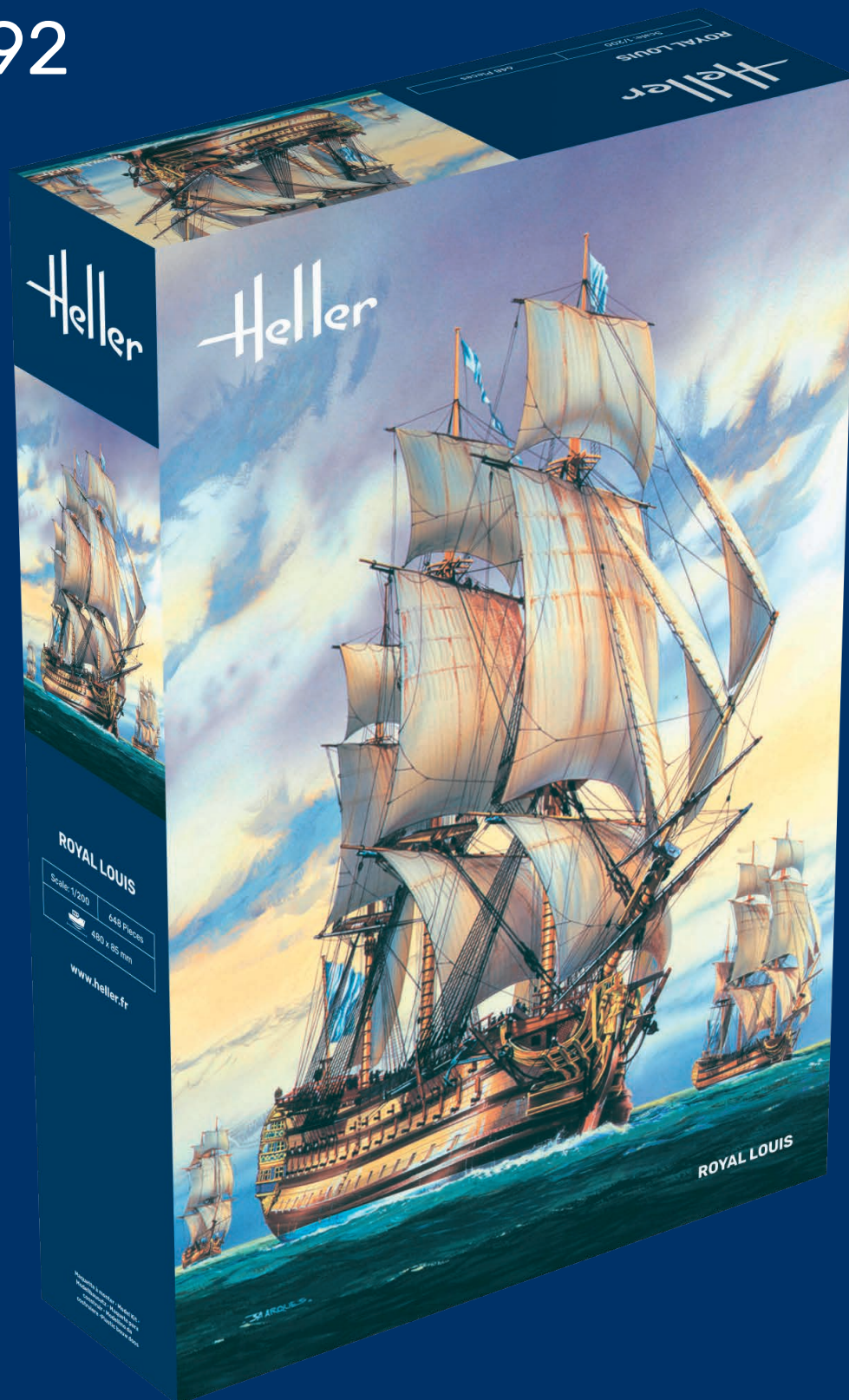


Heller

ROYAL LOUIS

80892



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Français

C'est grâce à l'obligeance du SERVICE HISTORIQUE DE LA MARINE à PARIS qui a ouvert ses archives aux Techniciens de la Société HELLER, que la reconstitution du ROYAL LOUIS à été possible.

Le dessin de la coque, la répartition de l'artillerie, le gréement ont été tirés d'un relevé de forme dû à Monsieur le Comte d'Estaing en date du 25 Septembre 1772. Les plans de construction ont été établis par Monsieur J.B. OLIVIER, célèbre pour son architecture navale.

Le ROYAL LOUIS est un vaisseau de 1er rang. Il est armé de 120 canons dont 32 du calibre 36 pesant chacun près de 5 tonnes. Sa longueur à la flottaison est de 68 m., hors-tout de 96 m., la hauteur du grand mât de la quille à la pomme est de 74 m.

Le ROYAL LOUIS en 1779, 1780, était Vaisseau Chef de l'Escadre Bleue-Blanche faisant partie de l'Escadre d'Amérique dite du Comte d'ESTAING.

Ce vaisseau est remarquable par ses formes et plus particulièrement par la richesse et la finesse de son château dont les balcons sont de vrais chefs-d'œuvre. Il a fait naufrage près de Brest en 1794 et a coulé.

Deutsch

Es ist der Hilfsbereitschaft des SERVICE HISTORIQUE DE LA MARINE in PARIS zu verdanken, die ihre Archive für die Techniker der Firma HELLER geöffnet hatten, dass die Rekonstruktion der ROYAL LOUIS möglich war.

Das Design des Rumpfes, die Verteilung der Artillerie und der Takelage wurden aus einem Entwurf des Grafen von Estaing vom 25. September 1772 übernommen. Die Baupläne wurden von Herrn J.B. OLIVIER, berühmt für seine Schiffsarchitektur, erstellt. Die Royal Louis war ein Großsegler erster Klasse. Sie war mit 120 Kanonen ausgerüstet, davon 32 St. vom Kaliber 36, von denen jede fast 5 Tonnen wog. Sie gehörte zu den größten Kriegsschiffen ihrer Zeit. Namensgeber war der französische König Louis XVI. Ihre Länge an der Wasserlinie betrug 68 m, die Gesamtlänge 96 m und die Höhe des Hauptmastes vom Kiel bis zur Plattform betrug 74 m.

In den Jahren 1779-1780 war die Royal Louis ein Hauptschiff des Blau-Weiß-Geschwaders, das zum Geschwader von Amerika genannt, Graf von Estaing gehörte.

Dieses Schiff war außergewöhnlich aufgrund seiner Formen und vor allem für den Reichtum, der Finesse und der Eleganz seines Hecks, deren Balkone wahre Meisterwerke waren. Sie erlitt 1794 in der Nähe von Brest Schiffbruch und sank.

Italiano

Grazie alla disponibilità del SERVICE HISTORIQUE DE LA MARINE di PARIGI, che ha aperto i propri archivi per i tecnici dell'azienda HELLER, è stata possibile la ricostruzione della ROYAL LOUIS.

Il design dello scafo e la distribuzione dell'artiglieria e del sartiame furono ripresi da un progetto del conte d'Estaing del 25 settembre 1772. I piani di costruzione sono stati redatti dal Sig. J.B. OLIVIER, rinomato per la sua architettura navale. La Royal Louis era una nave alta di primo rango. Era armata con 120 cannoni, 32 dei quali di calibro 36, ciascuno del peso di quasi 5 tonnellate. Era una delle navi da guerra più grandi della sua epoca. Il suo nome le fu dato in onore del re francese Luigi XVI. La sua lunghezza al galleggiamento era di 68 m, la lunghezza totale di 96 m e l'altezza dell'albero principale dalla chiglia alla piattaforma era di 74 m.

Negli anni 1779-1780, la Royal Louis era una nave ammiraglia dello Squadrone Bianco e Blu, appartenente allo Squadrone d'America Conte d'Estaing.

Questa nave era straordinaria per le sue forme e, soprattutto, per la ricchezza, la finezza e l'eleganza della sua poppa, i cui pulpiti erano veri e propri capolavori. Nel 1794 naufragò nei pressi di Brest e affondò.

English

It is thanks to the helpfulness of the SERVICE HISTORIQUE DE LA MARINE in PARIS, who opened their archives to the technicians of the HELLER company, that the reconstruction of the ROYAL LOUIS was possible.

The design of the hull, the distribution of the artillery and the rigging were taken from a draft by Count von Estaing dated 25 September 1772. The construction plans were drawn up by Mr J.B. OLIVIER, famous for his naval architecture. The Royal Louis was a first class tall ship. She was equipped with 120 cannons, 32 pcs. of them of calibre 36, each weighing almost 5 tons. She was one of the largest warships of her time. She was named after the French king Louis XVI. Her length at the waterline was 68 m, the total length 96 m and the height of the main mast from keel to platform was 74 m.

In the years 1779-1780 the Royal Louis was a main ship of the Blue and White Squadron, which belonged to the Squadron of America called, Count von Estaing.

This ship was exceptional for its forms and above all for the richness, finesse and elegance of its stern, whose balconies were true masterpieces. She was shipwrecked near Brest in 1794 and sank.

Español

La reconstrucción del ROYAL LOUIS fue posible gracias a la ayuda del SERVICE HISTORIQUE DE LA MARINE de París, que abrió sus archivos a los técnicos de la empresa HELLER.

El diseño del casco, la distribución de la artillería y el aparejo se tomaron de un boceto del conde Von Estaing del 25 de septiembre de 1772. Los planos de construcción los elaboró J.B. OLIVIER, famoso por su arquitectura naval. El Royal Louis era un velero de primera clase. Estaba armado con 120 cañones, 32 de ellos de calibre 36, cada uno con un peso de casi 5 toneladas. Fue uno de los buques de guerra más grandes de su tiempo. Recibió el nombre en honor al rey francés Luis XVI. Su eslora en la línea de flotación era de 68 m, la eslora total de 96 m, y la altura del mástil principal desde la quilla hasta la plataforma era de 74 m.

En los años 1779-1780, el Royal Louis era uno de los principales barcos del Escuadrón Azul y Blanco, que pertenecía al Escuadrón de América llamado conde Von Estaing.

Este barco era excepcional por sus formas y sobre todo por la riqueza, finura y elegancia de su popa, cuyos balcones eran verdaderas obras maestras. Naufragó cerca de Brest en 1794 y se hundió.

Nederlands

De reconstructie van de ROYAL LOUIS was mogelijk dankzij de hulpvaardigheid van de SERVICE HISTORIQUE DE LA MARINE in PARIJS, die hun archieven openstelden voor de technici van het bedrijf HELLER.

Het ontwerp van de romp, de verdeling van de artillerie en de tuigage zijn ontleend aan een ontwerp van de graaf von Estaing van 25 september 1772. De bouwplannen zijn opgesteld door de heer J.B. OLIVIER, die beroemd was om zijn scheepsarchitectuur. De Royal Louis was een eerste klas zeilschip. Het schip was bewapend met 120 kanonnen, 32 ervan van kaliber 36 en elk met een gewicht van bijna 5 ton. Ze was een van de grootste oorlogsschepen van haar tijd. Ze is vernoemd naar de Franse koning Lodewijk XVI. De lengte aan de waterlijn bedroeg 68 m, de totale lengte 96 m en de hoogte van de hoofdmast van de kiel tot het platform was 74 m.

In de jaren 1779-1780 was de Royal Louis het admiraal-schip van het 'Blue and White Squadron' (blauwe en witte Eskader), dat deel uitmaakte van het 'Squadron of America' ook bekend als Earl of Estaing.

Dit schip was uitzonderlijk onwille van de vormen en vooral door de rijkdom, finesse en elegantie van de achtersteven, met balkons als ware meesterwerken. Ze leed schipbreuk en zonk bij Brest in 1794.

2

Numéro de phase
Step number
Schrittnummer
Número de fase

56

Référence de couleur
Colour reference no
Farbangabe
Referencia de color

37

Numéro de pièce
Part number
Teilenummer
Número de pieza

6

Numéro de decal
Decal number
Abziehbildnummer
Número de calcomanía



12
Cuivre jaune
Copper
Kupfer



16
Or
Gold
Gold



25
Bleu mat
Matt blue
Mattblau



33
Noir mat
Matt black
Matt-Schwarz



34
Blanc mat
Matt white
Matt-Weiss



60
Ecarlate mat
Matt scarlet
Matt-Scharlachrot



71
Chêne satiné
Satin oak
Satin-Eichgrün



93
Jaune désert mat
Matt desert yellow
Matt-Wüstensand

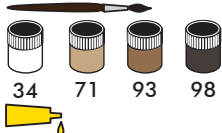


98
Chocolat mat
Matt chocolate
Matt-Shokolade

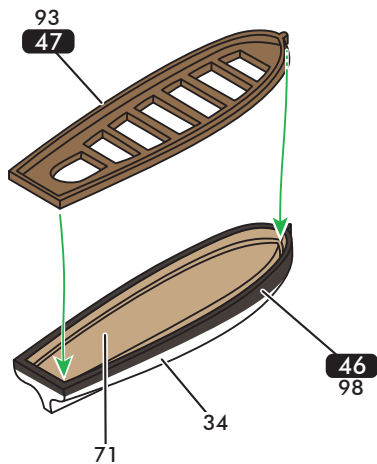


M1 = 30% 71 + 70% 34

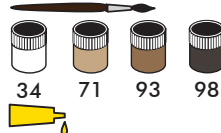
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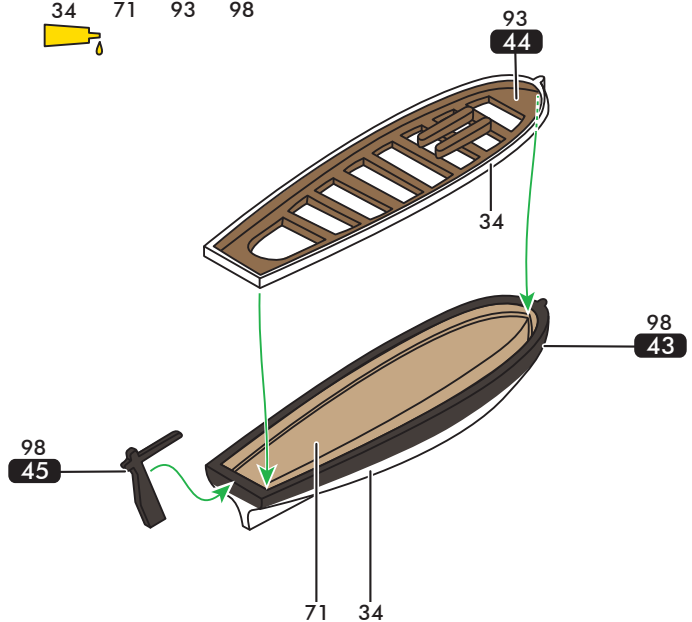
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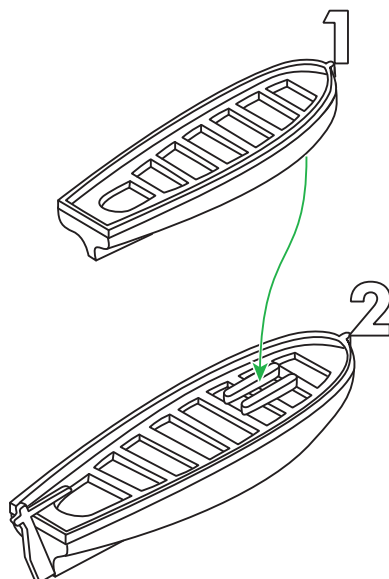
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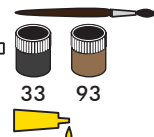
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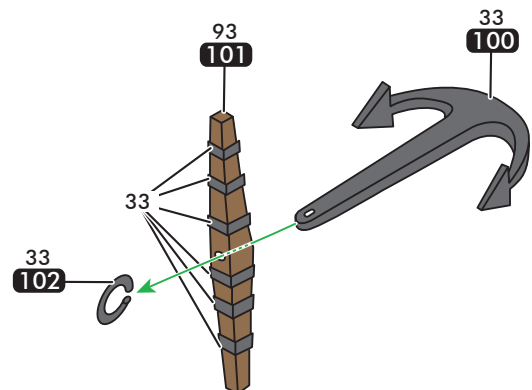
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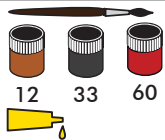
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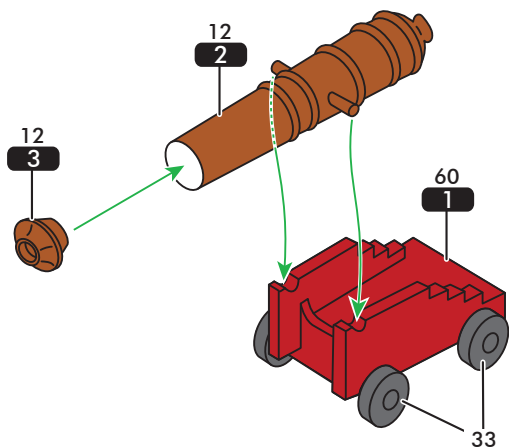
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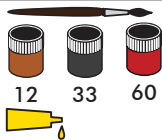
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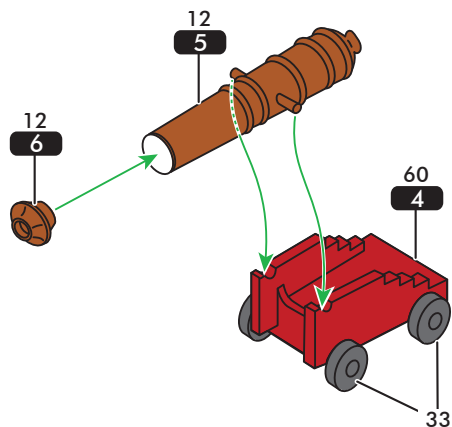
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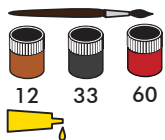
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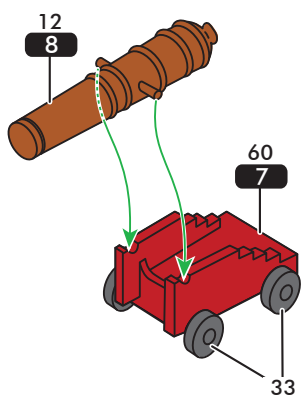
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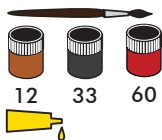
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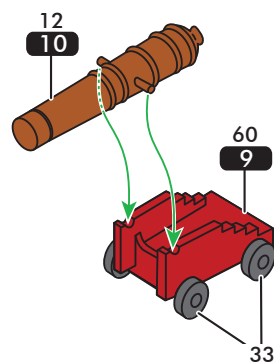
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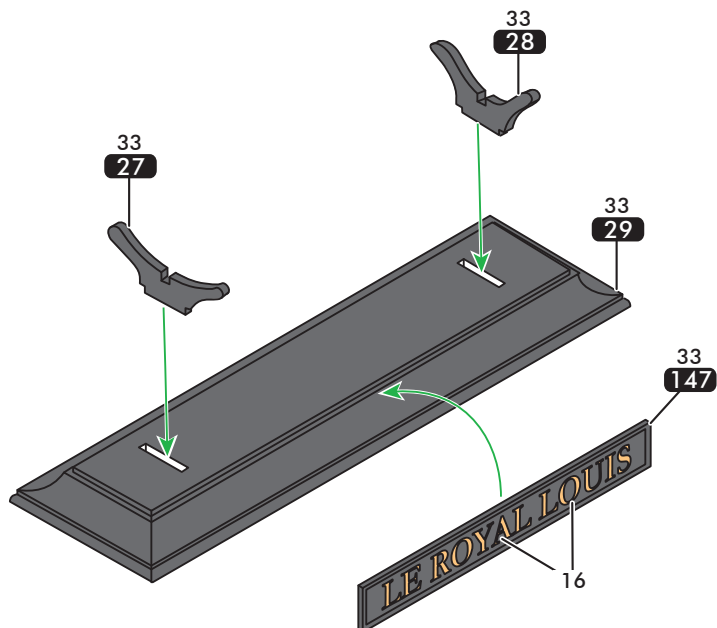
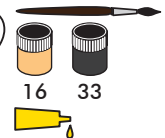
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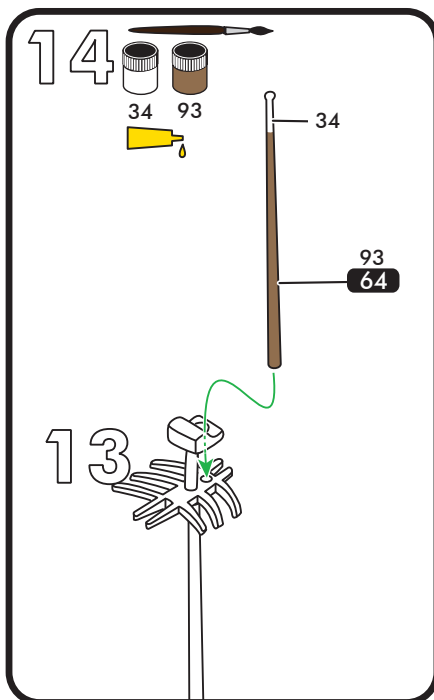
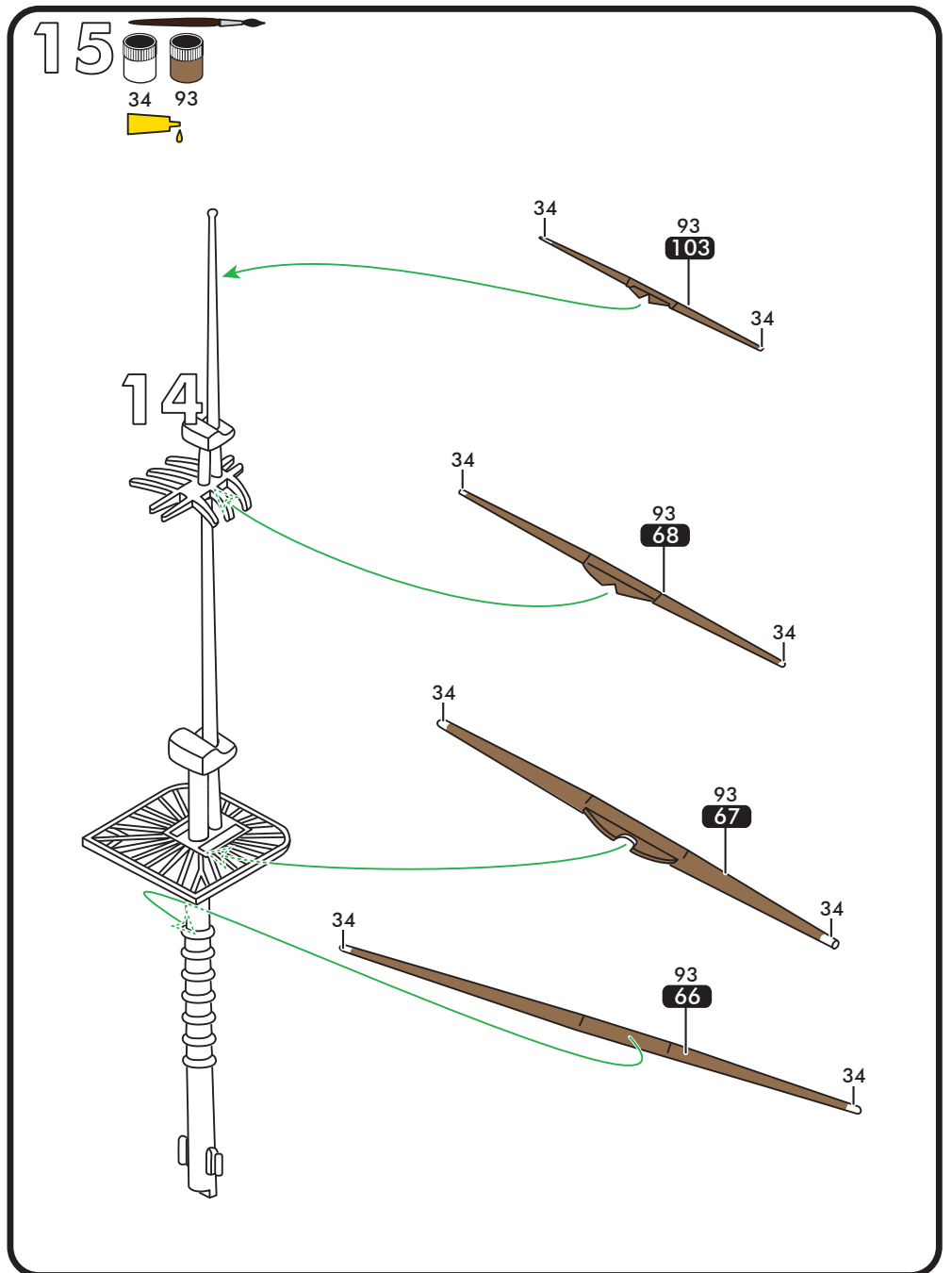
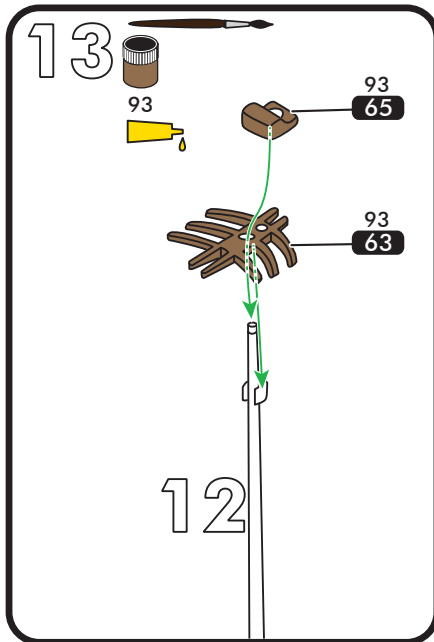
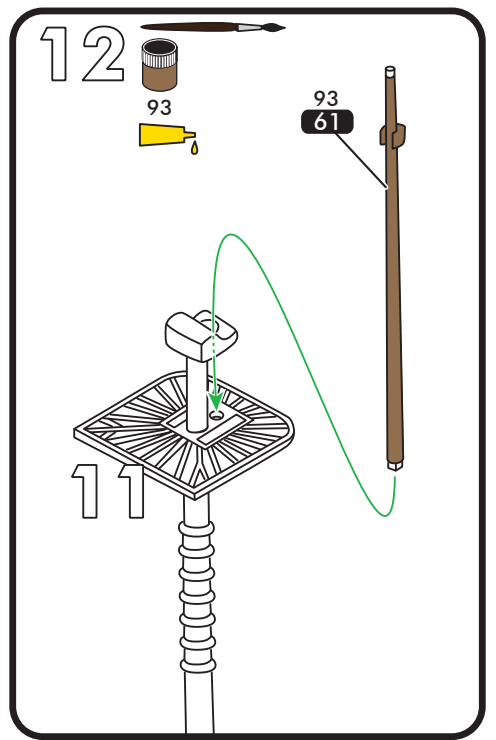
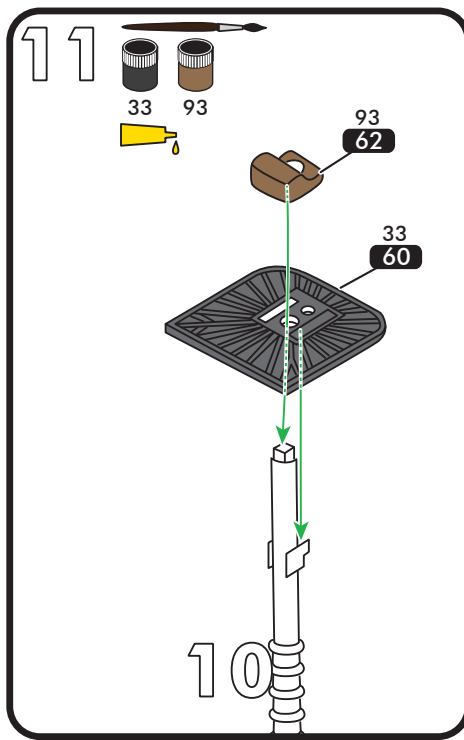
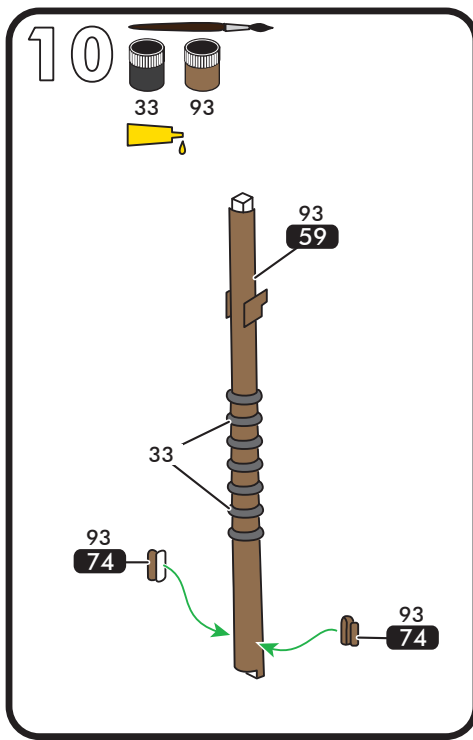


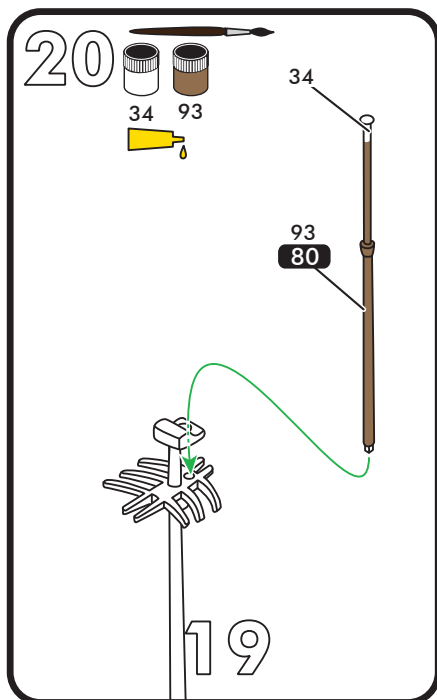
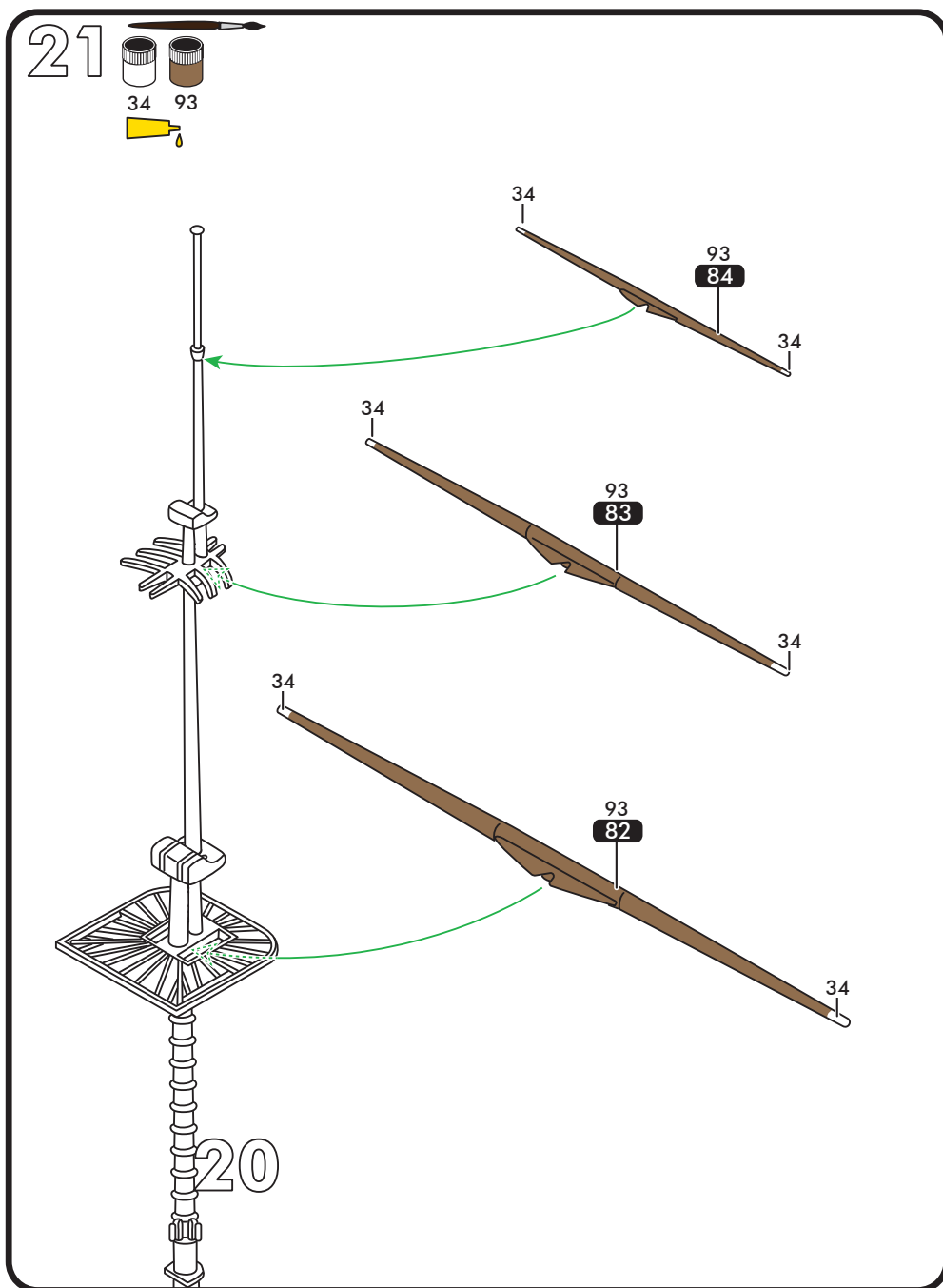
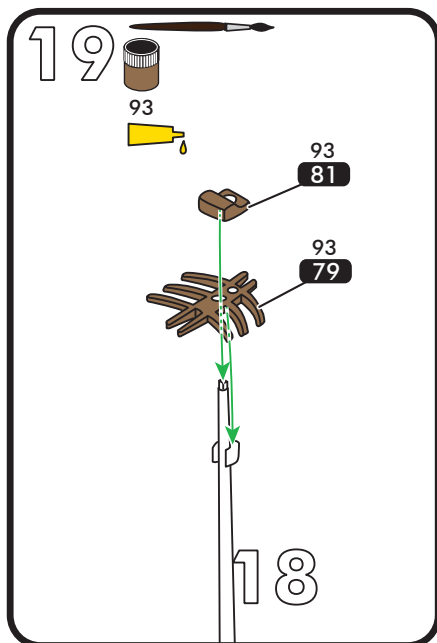
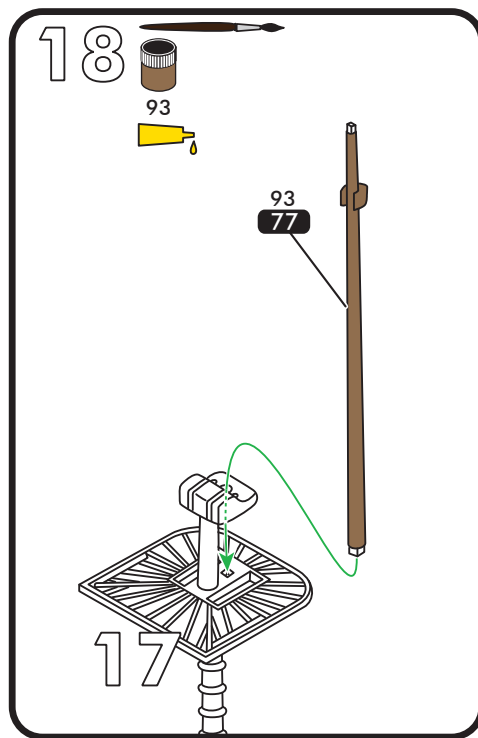
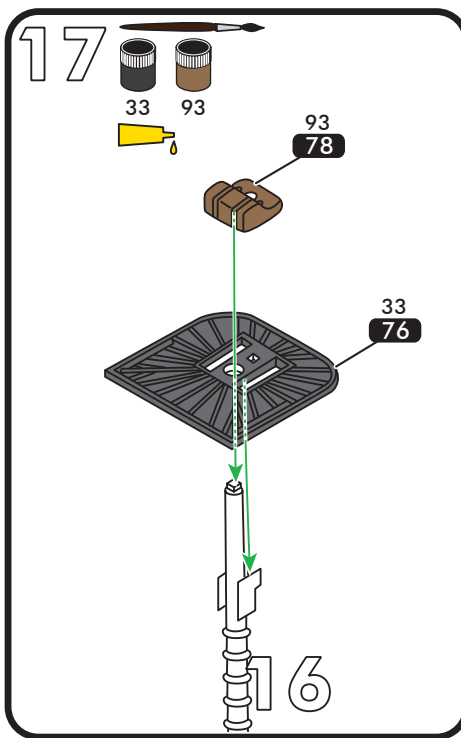
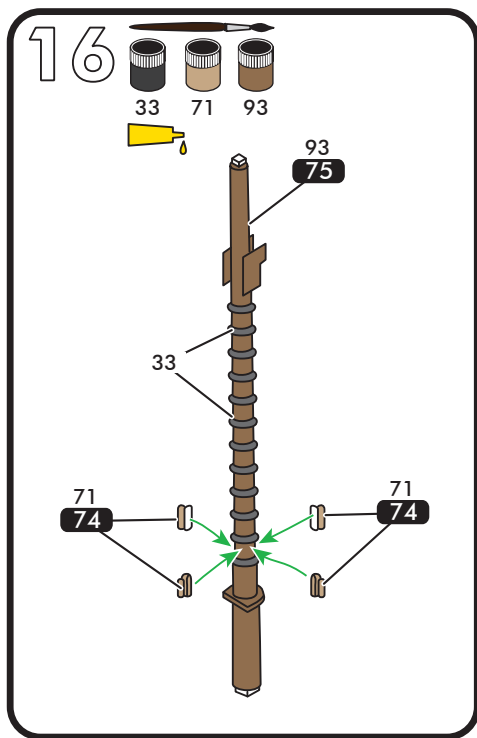
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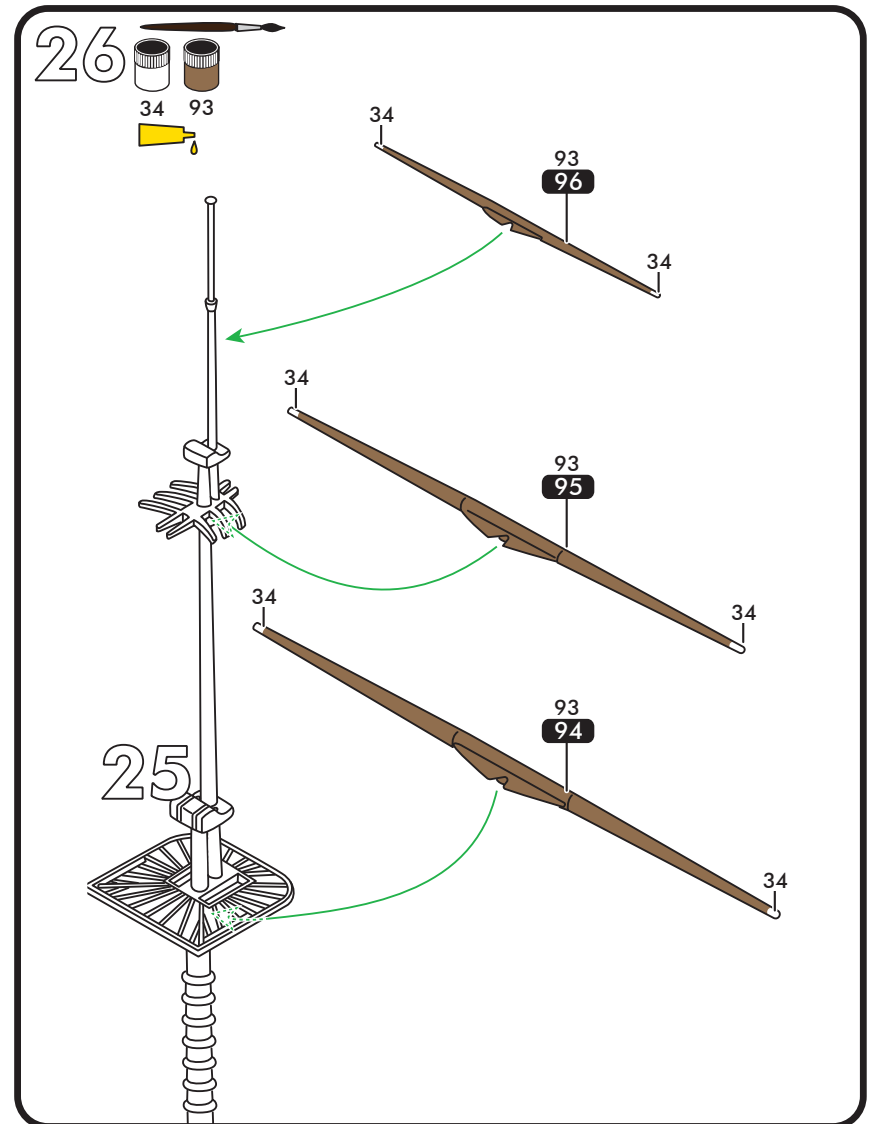
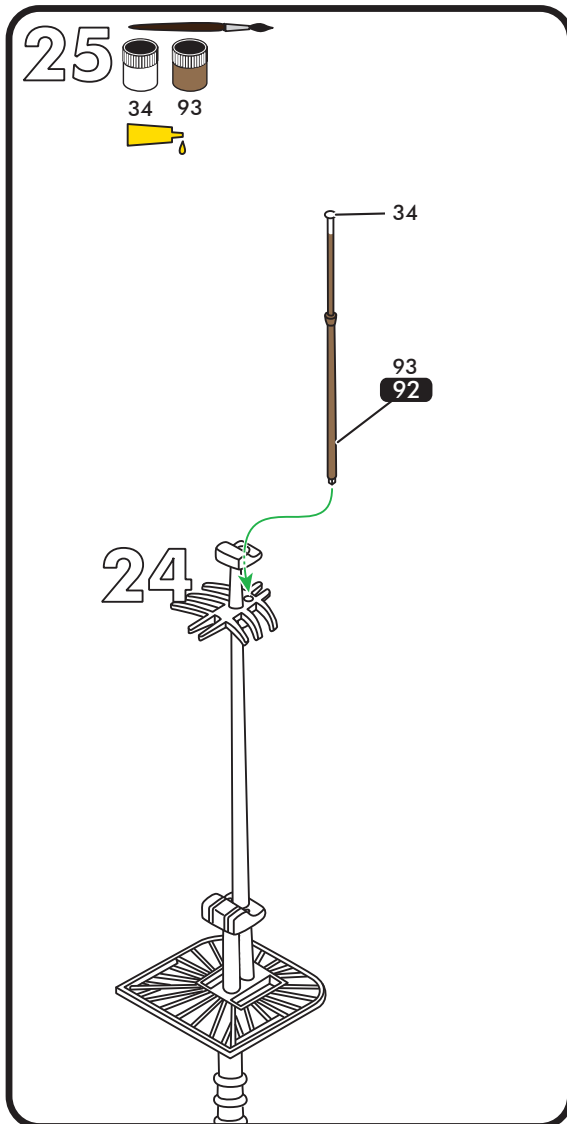
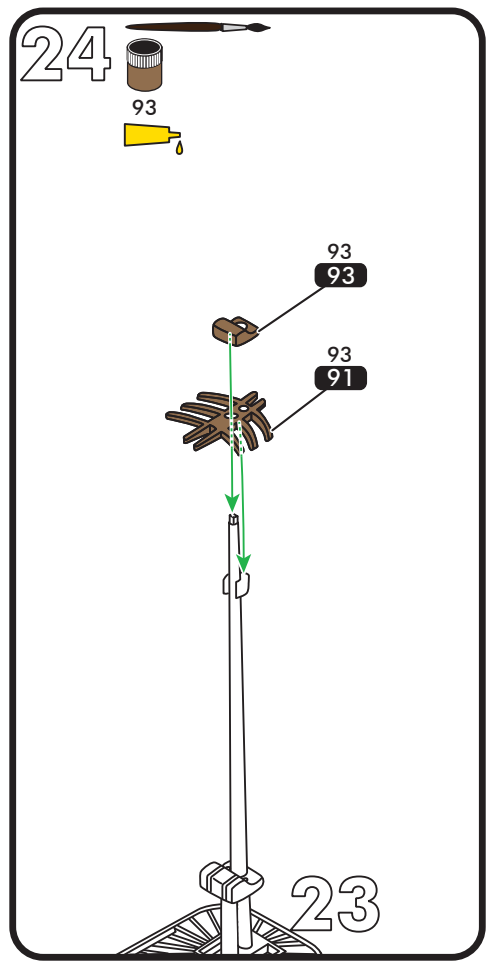
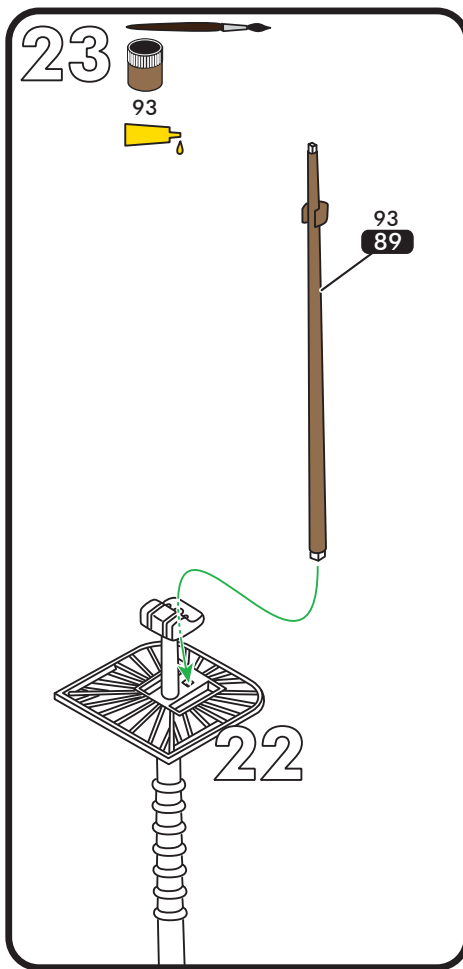
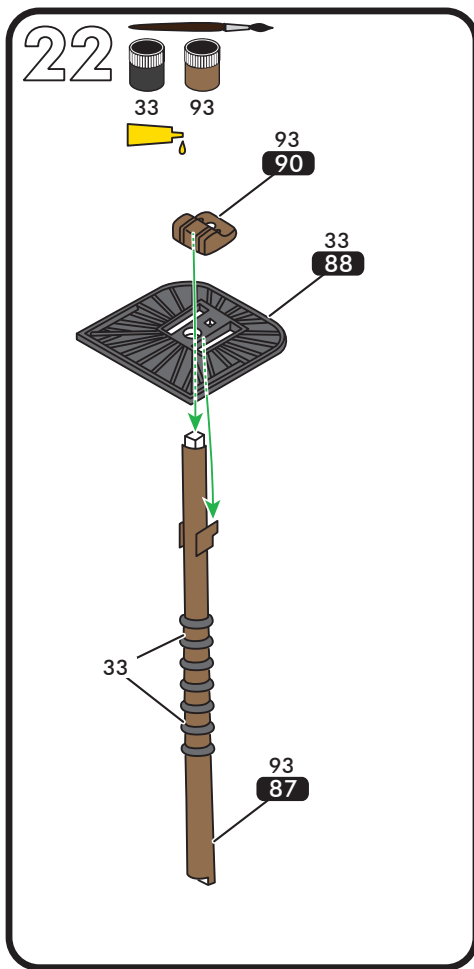


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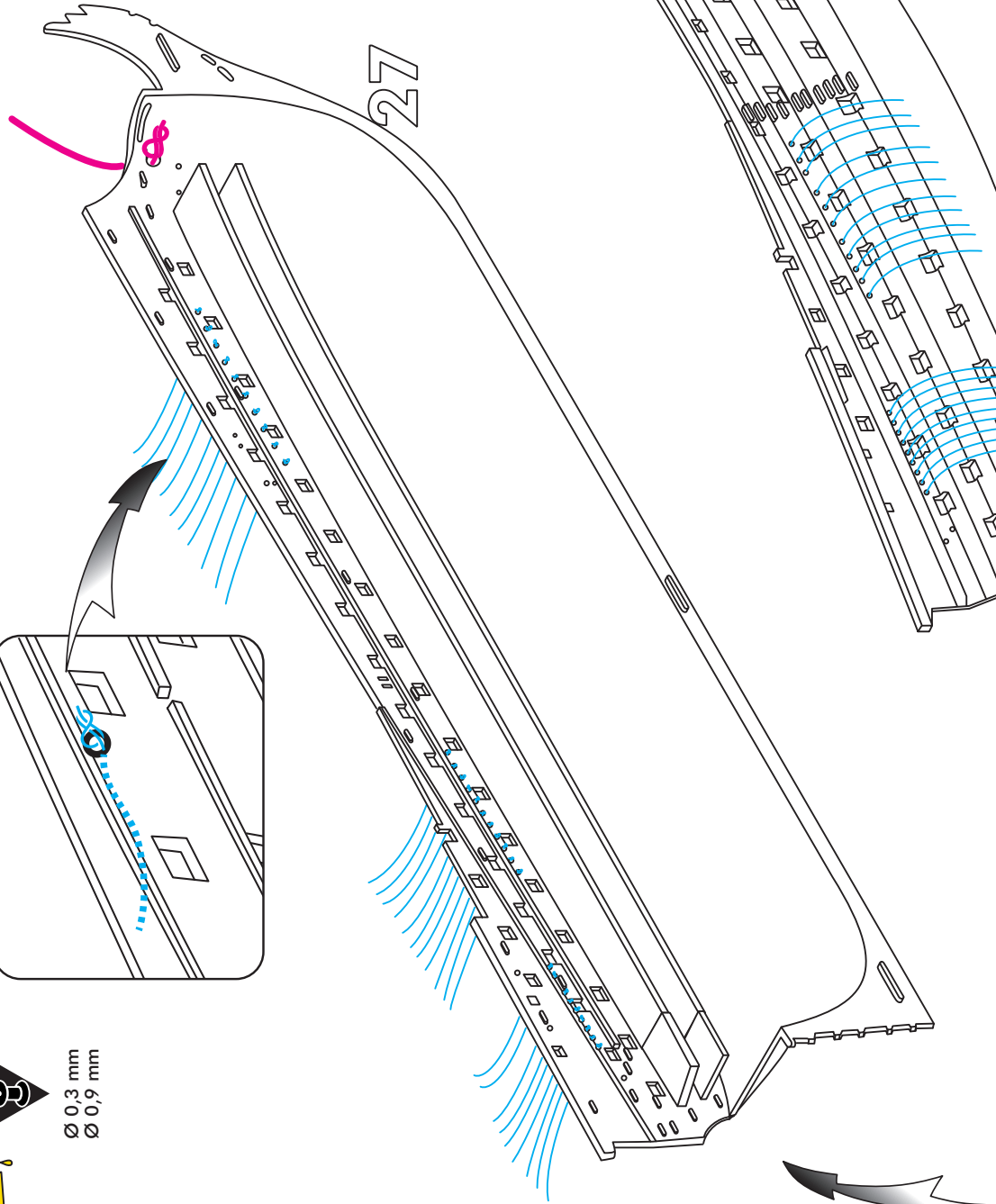
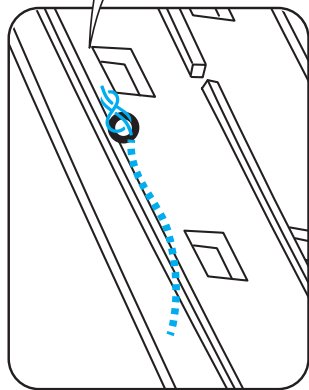




28



Ø 0,3 mm
Ø 0,9 mm



27

27



x60



Ø 0,3 mm

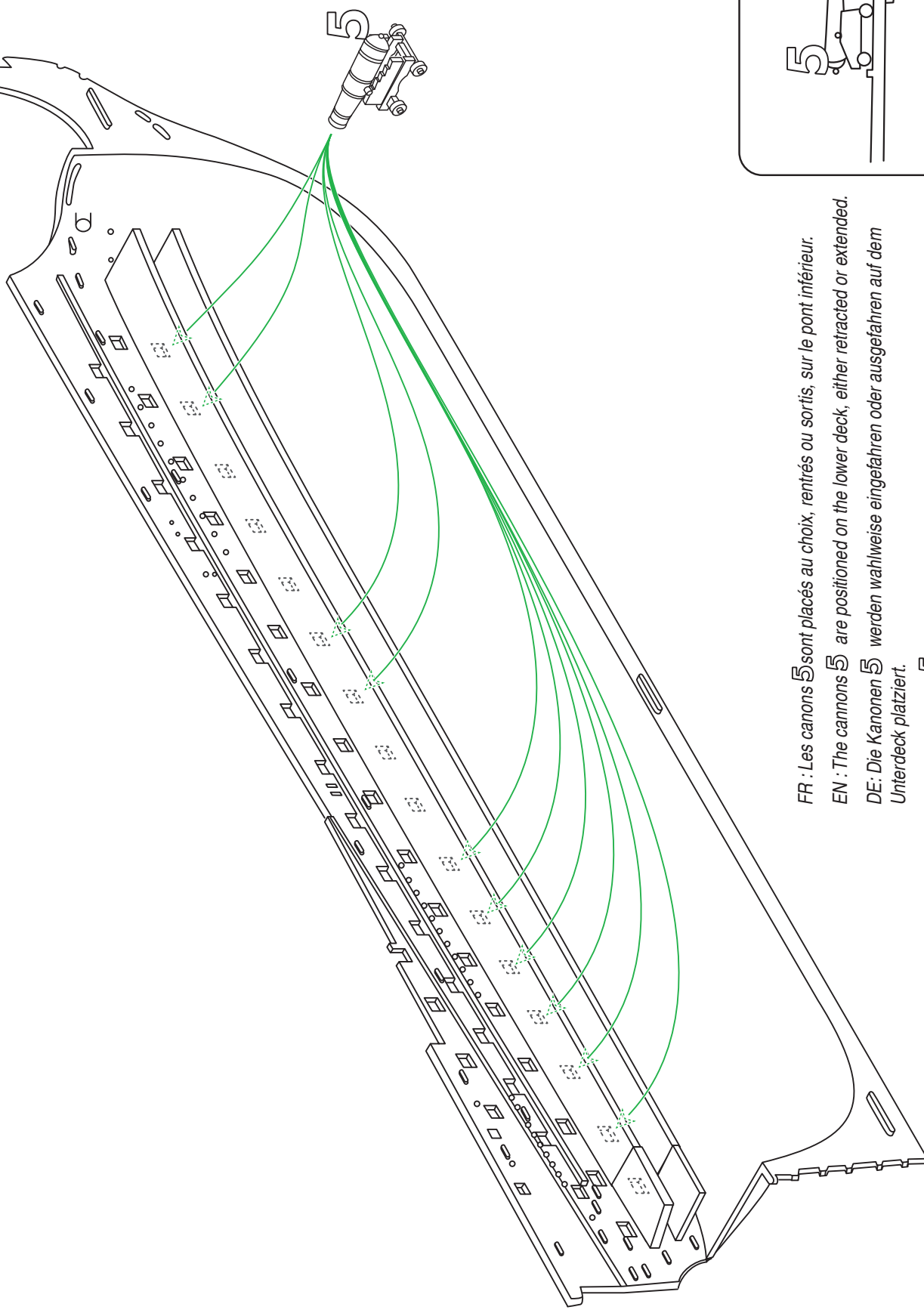


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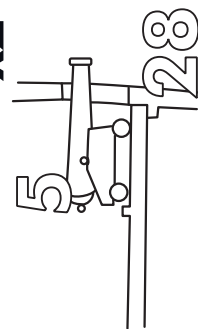


Ø 0,9 mm

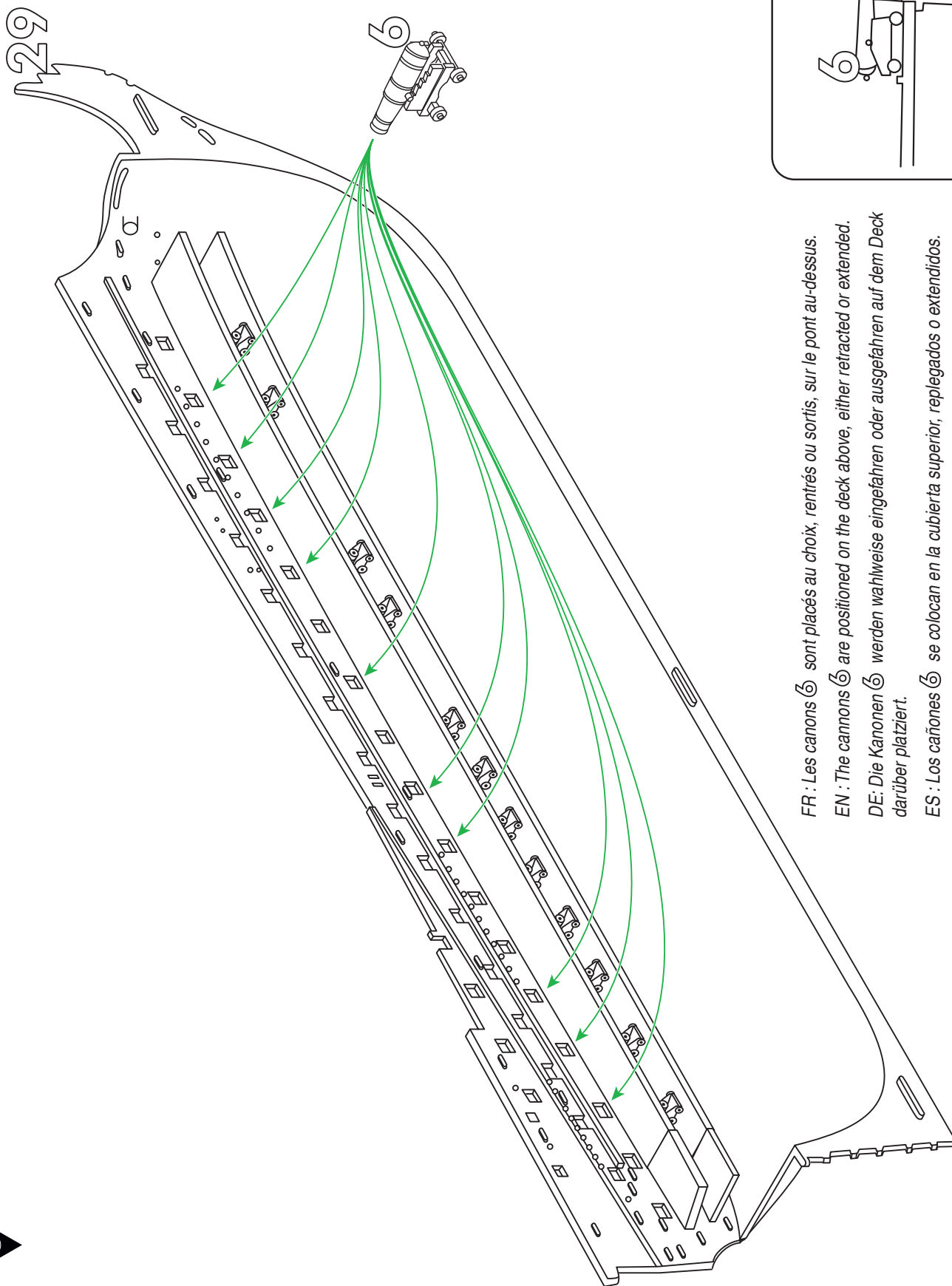




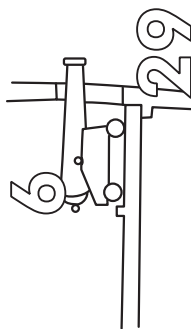
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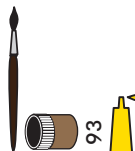
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 EN : The cannons 5 are positioned on the lower deck, either retracted or extended.
 DE: Die Kanonen 5 werden wahlweise eingefahren oder ausgefahren auf dem Unterdeck platziert.
 ES : Los cañones 5 se colocan replegados o extendidos en la cubierta inferior.



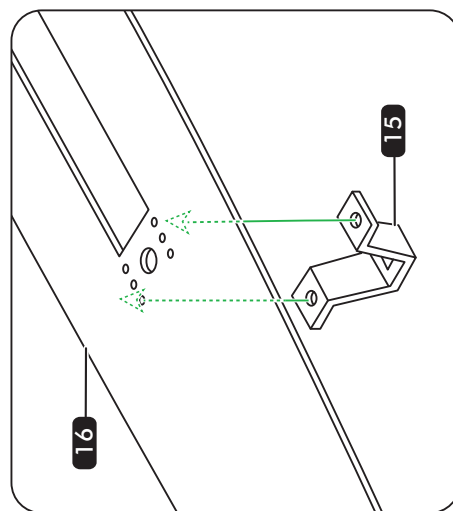
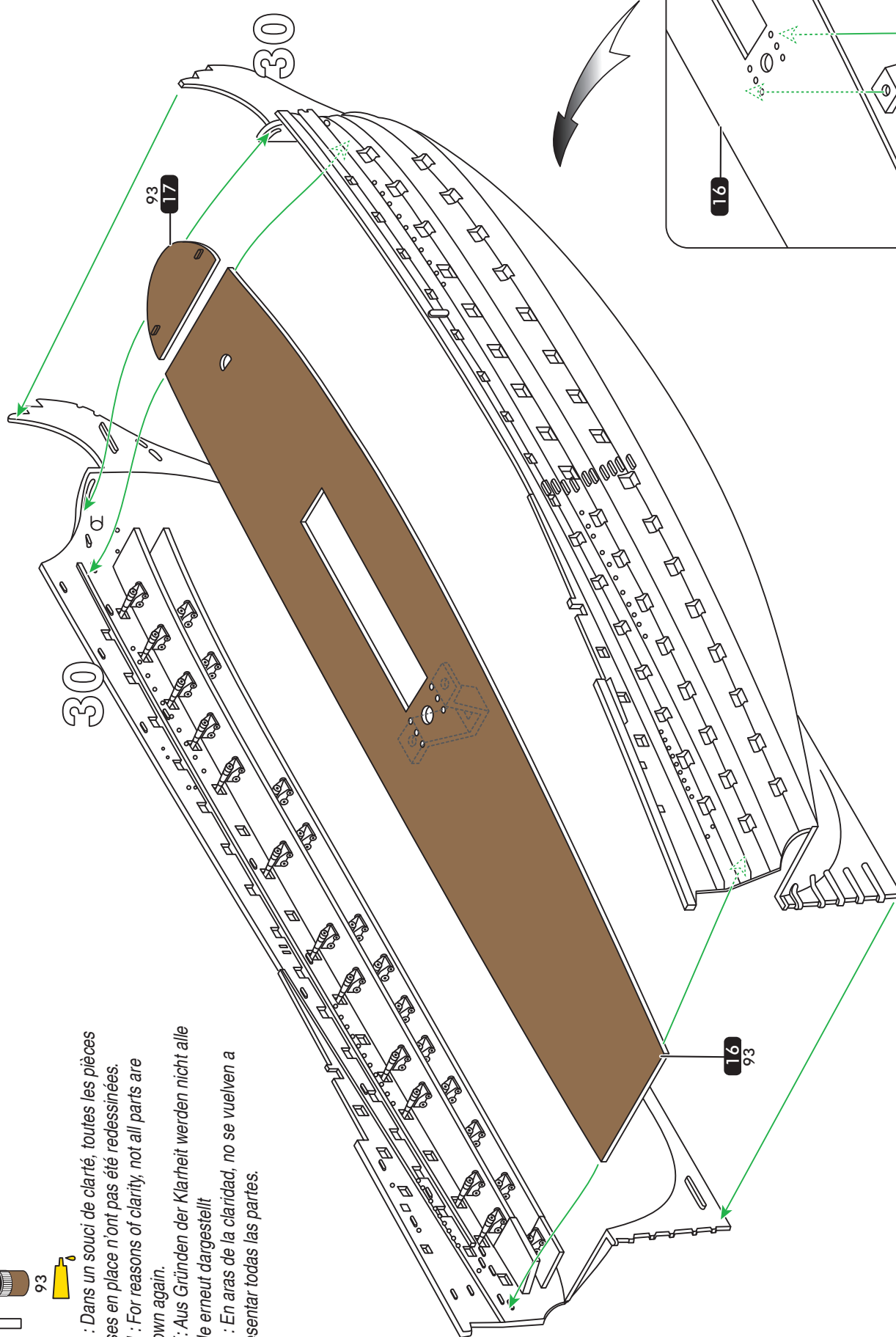
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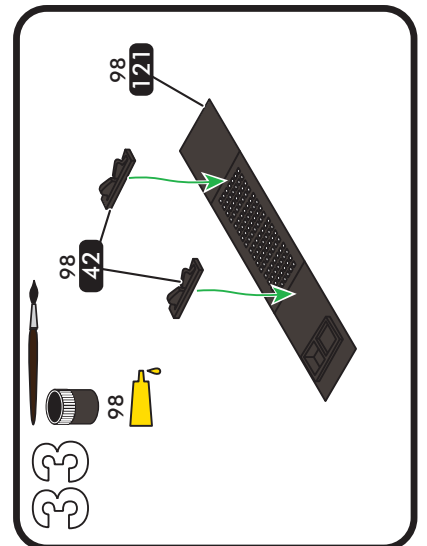
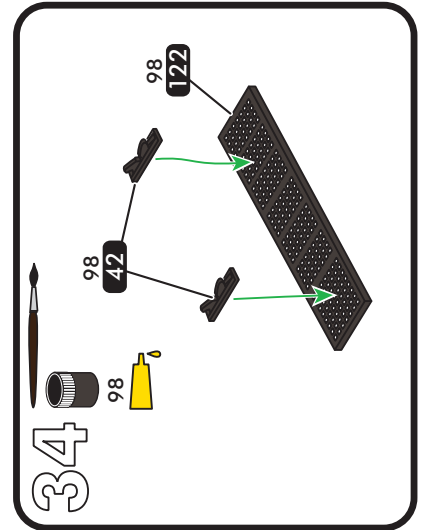
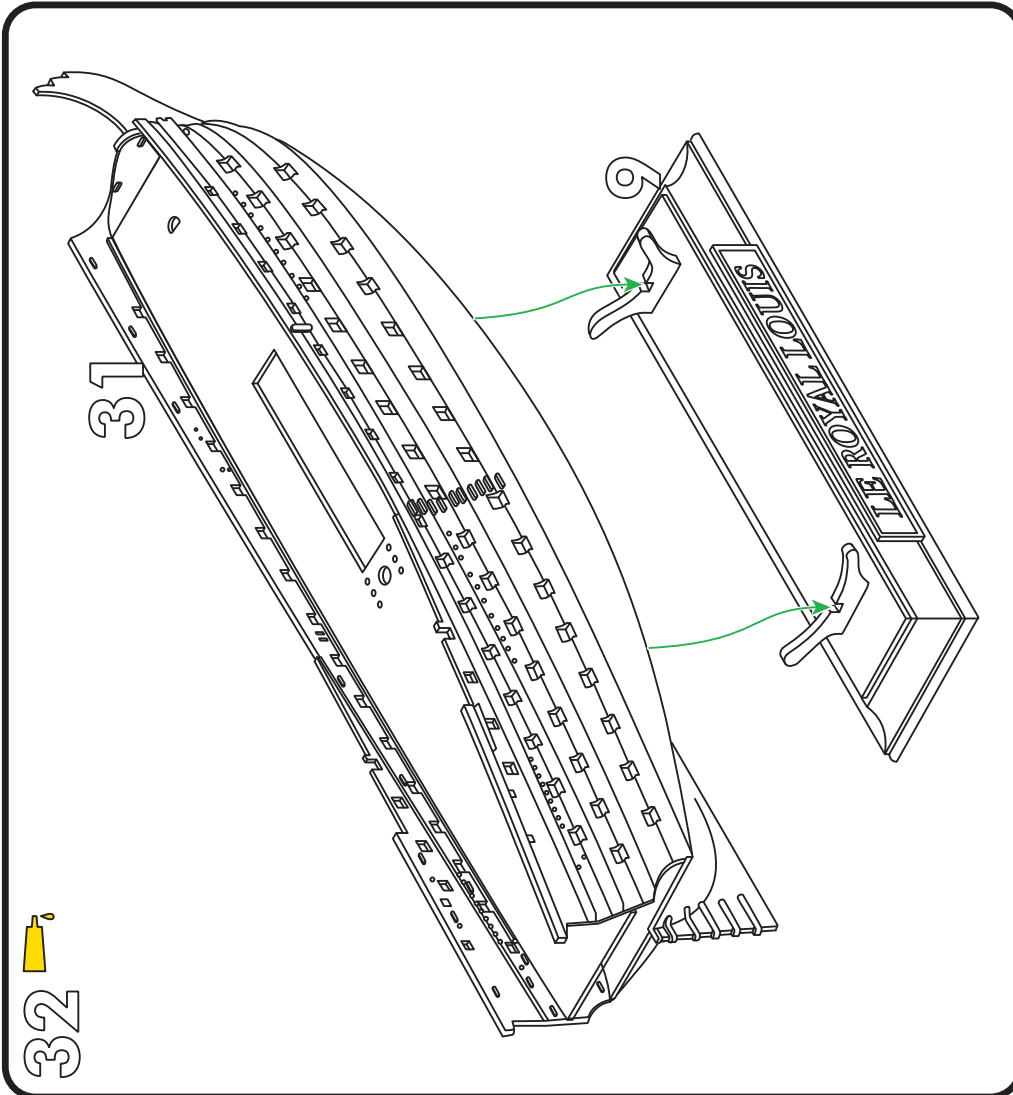
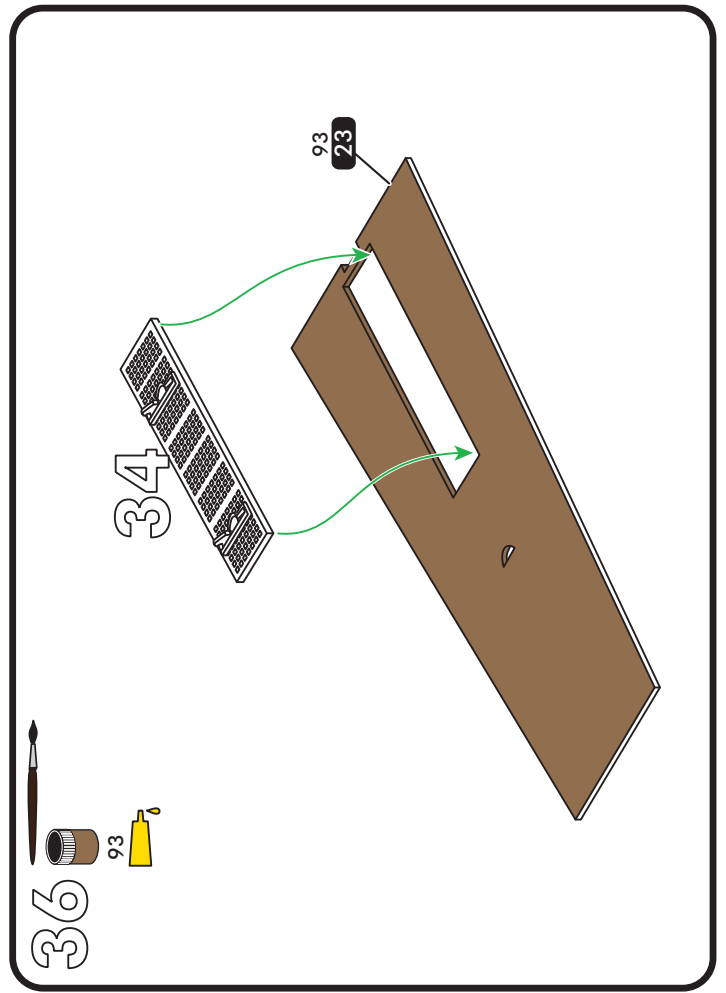
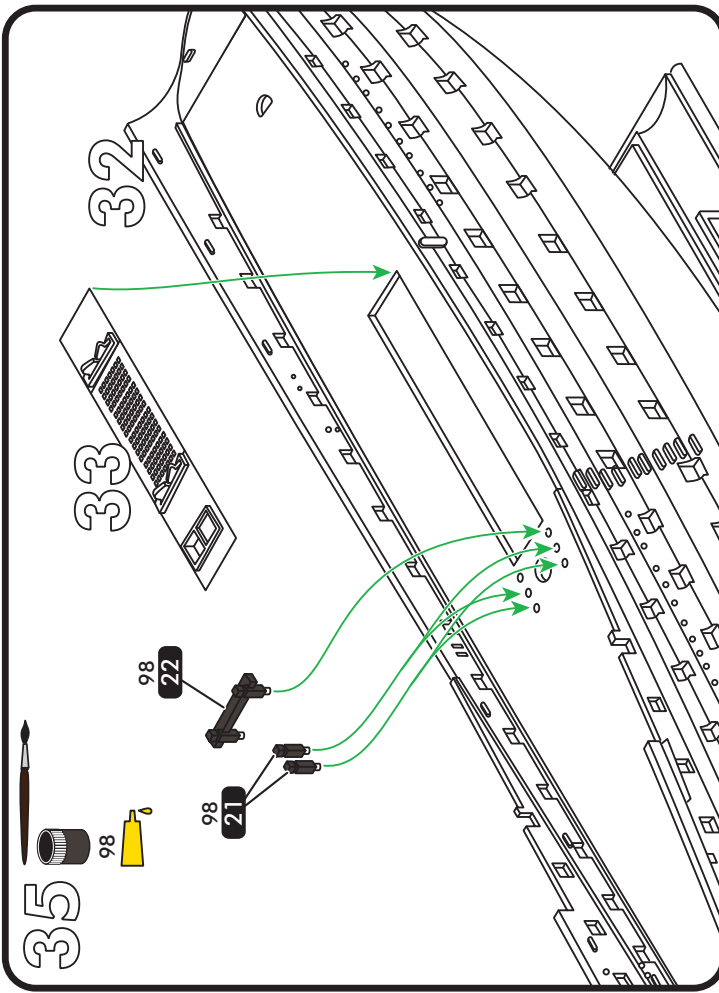


FR : Les canons ⑥ sont placés au choix, rentrés ou sortis, sur le pont au-dessus.
 EN : The cannons ⑥ are positioned on the deck above, either retracted or extended.
 DE: Die Kanonen ⑥ werden wahlweise eingefahren oder ausgefahren auf dem Deck darüber platziert.
 ES : Los cañones ⑥ se colocan en la cubierta superior, replegados o extendidos.



FR : Dans un souci de clarté, toutes les pièces mises en place n'ont pas été redessinées.
 EN : For reasons of clarity, not all parts are shown again.
 DE: Aus Gründen der Klarheit werden nicht alle Teile erneut dargestellt
 ES : En aras de la claridad, no se vuelven a presentar todas las partes.

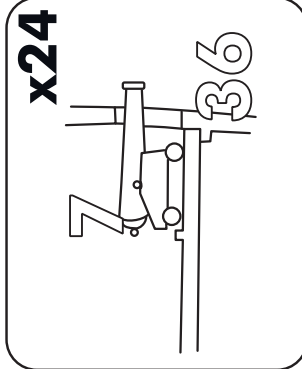
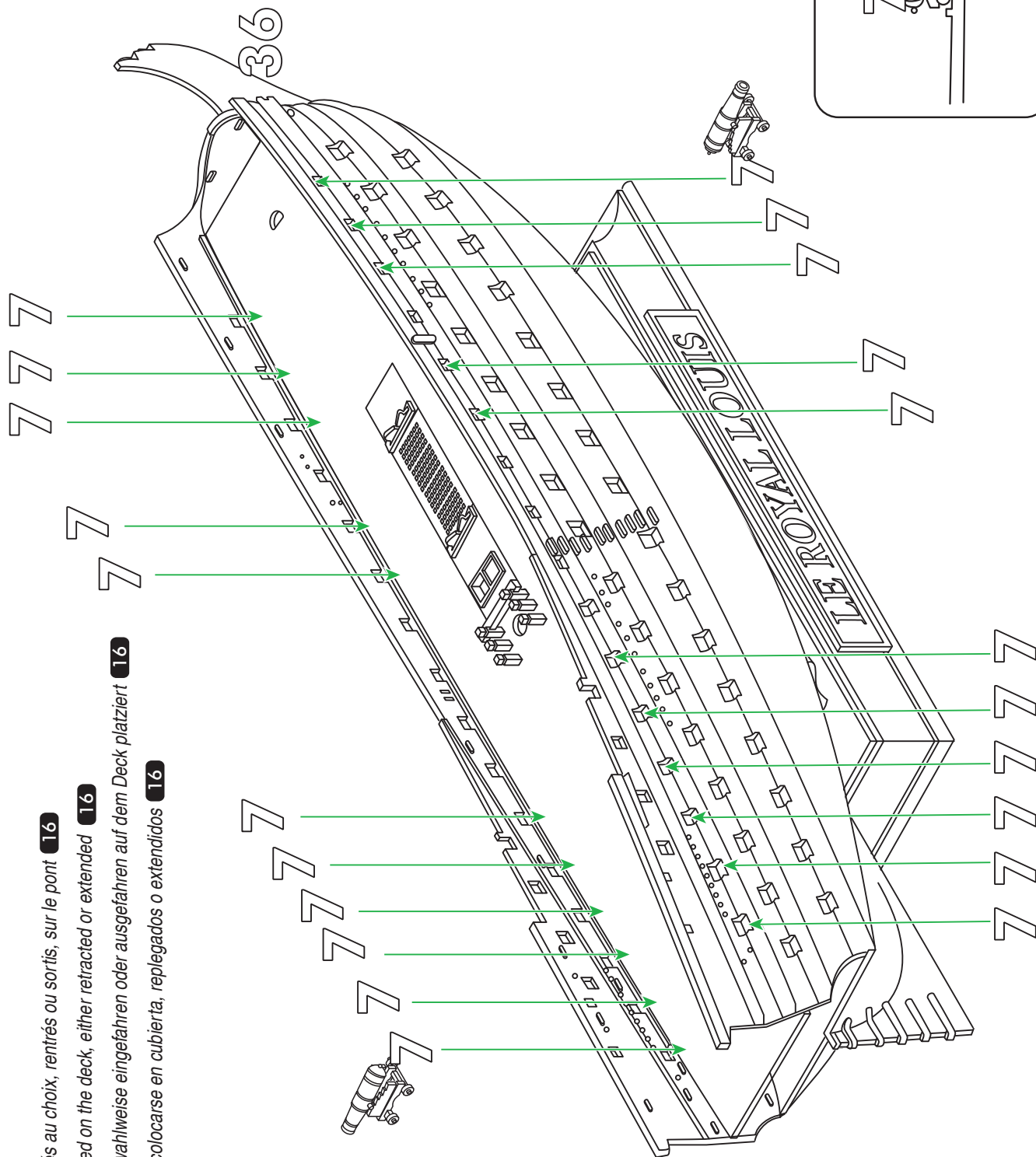




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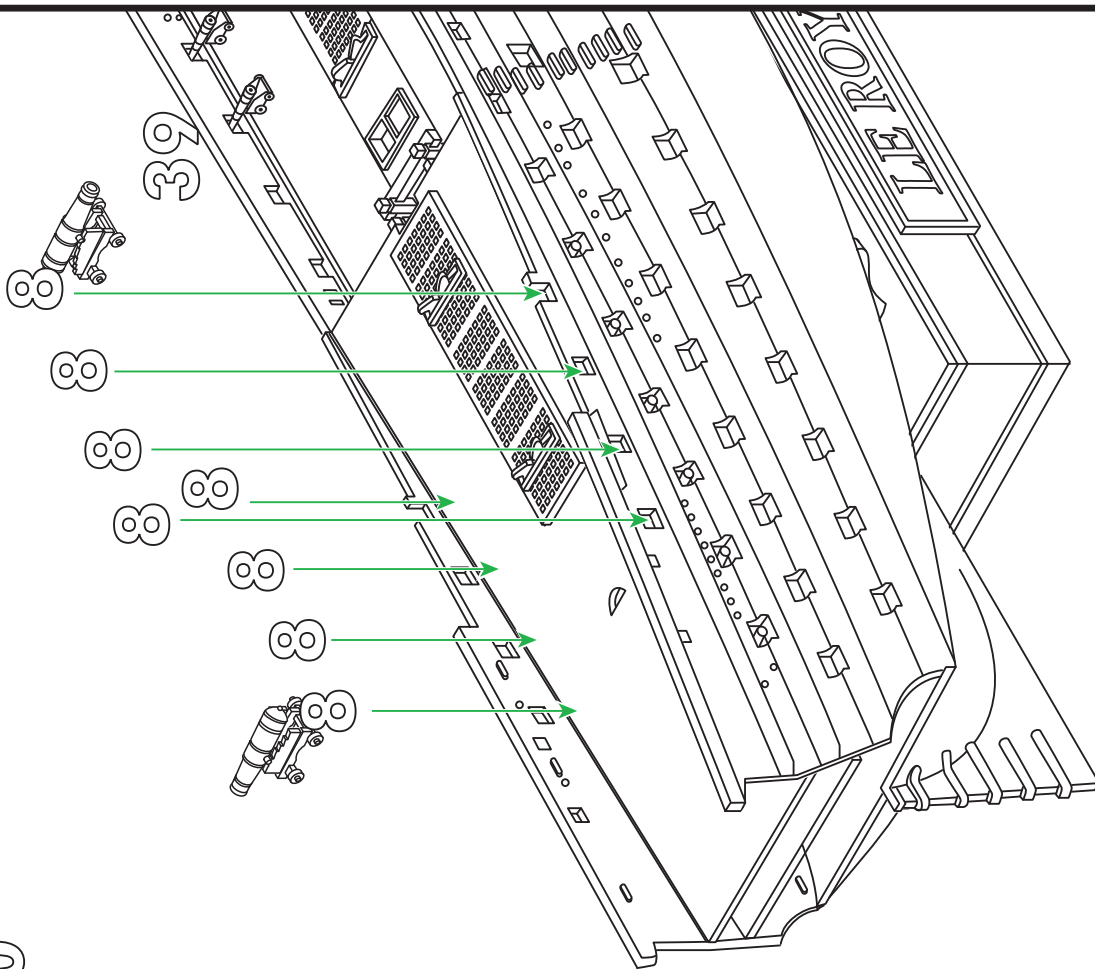


FR : Les canons 37 sont placés au choix, rentrés ou sortis, sur le pont 16
 EN : The cannons 37 are placed on the deck, either retracted or extended 16
 DE: Die Kanonen 37 werden wahlweise eingefahren oder ausgefahren auf dem Deck platziert 16
 ES : Los cañones 37 pueden colocarse en cubierta, replegados o extendidos 16



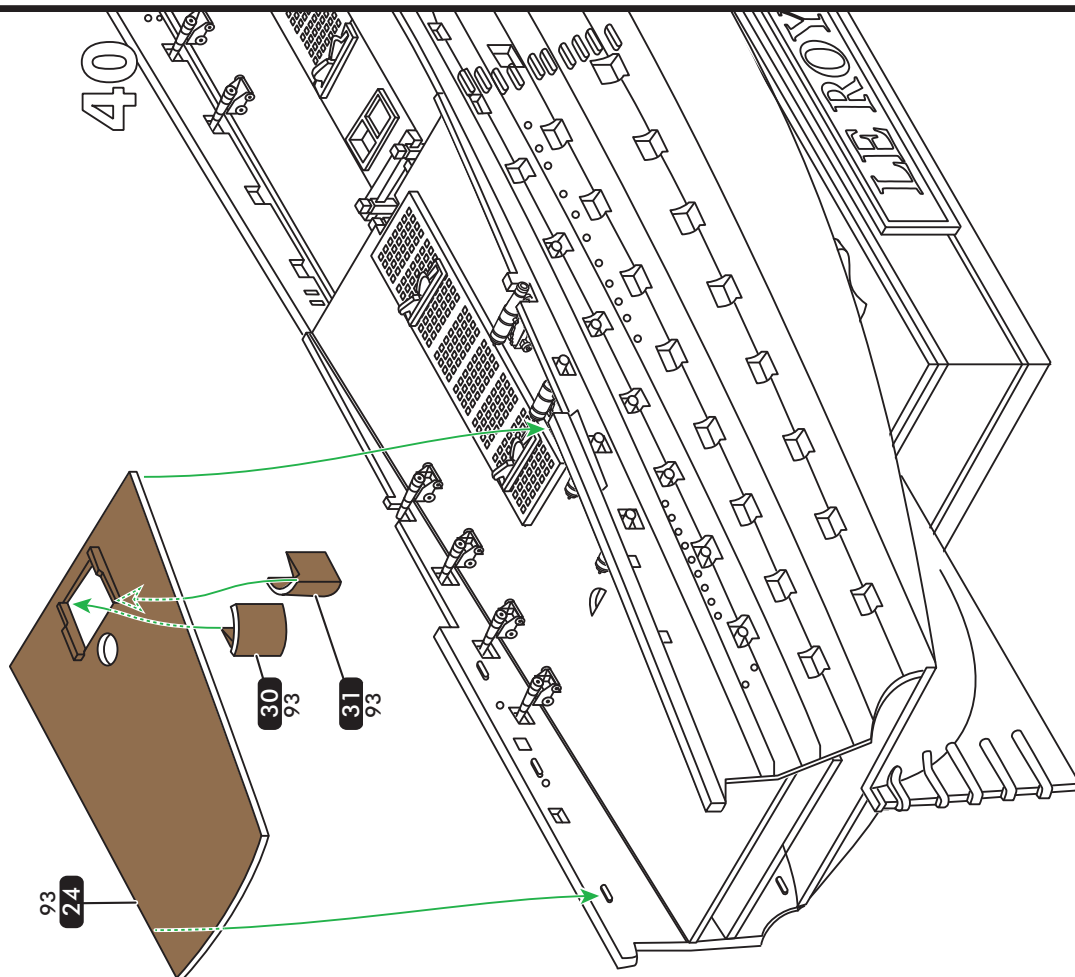
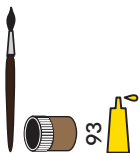


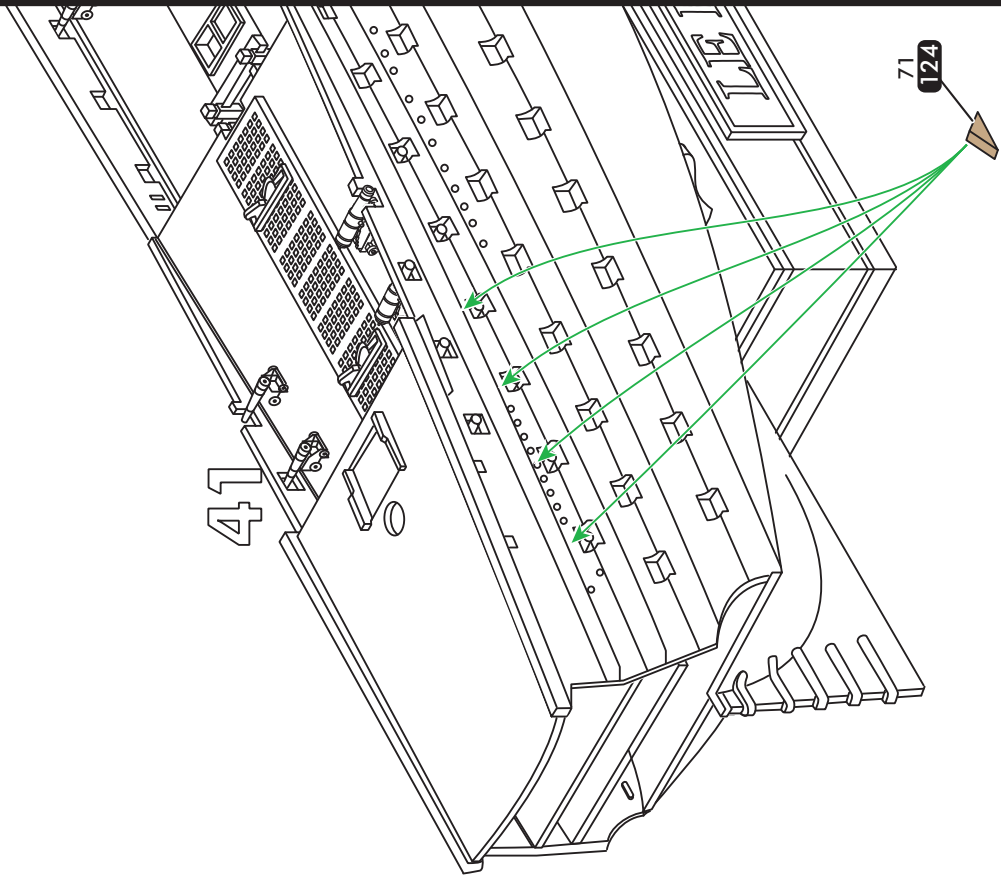
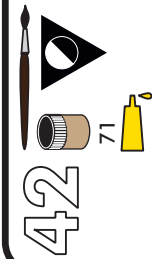
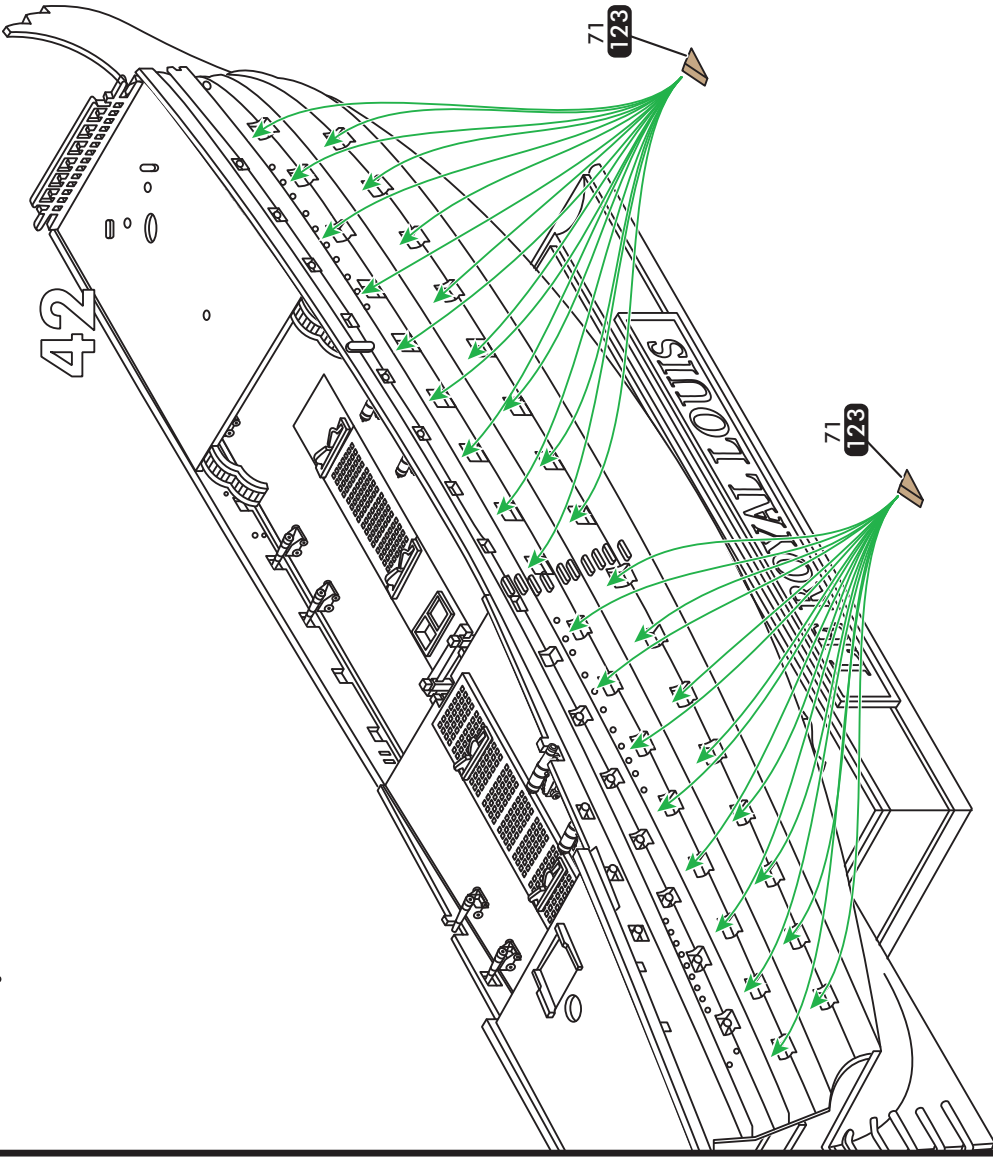
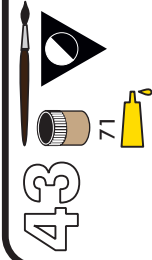
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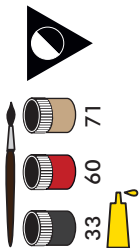


FR : Les canons ⑧ sont placés au choix, rentrés ou sortis, sur les ponts supérieurs.
 EN : The cannons ⑧ are positioned on the upper decks, either retracted or extended.
 DE: Die Kanonen ⑧ werden wahlweise eingefahren oder ausgefahren auf den oberen Decks platziert.
 ES : Los cañones ⑧ están situados en las cubiertas superiores, replegados o extendidos.

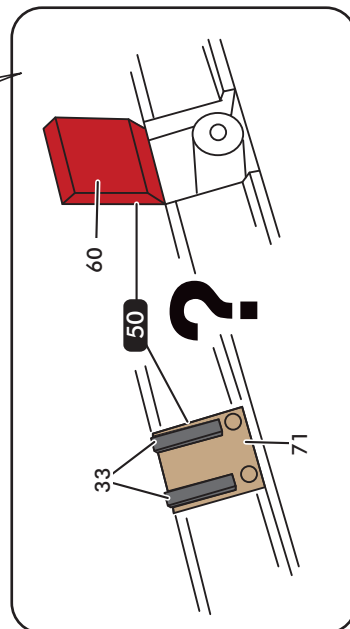
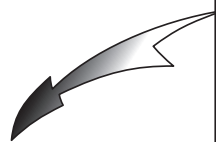
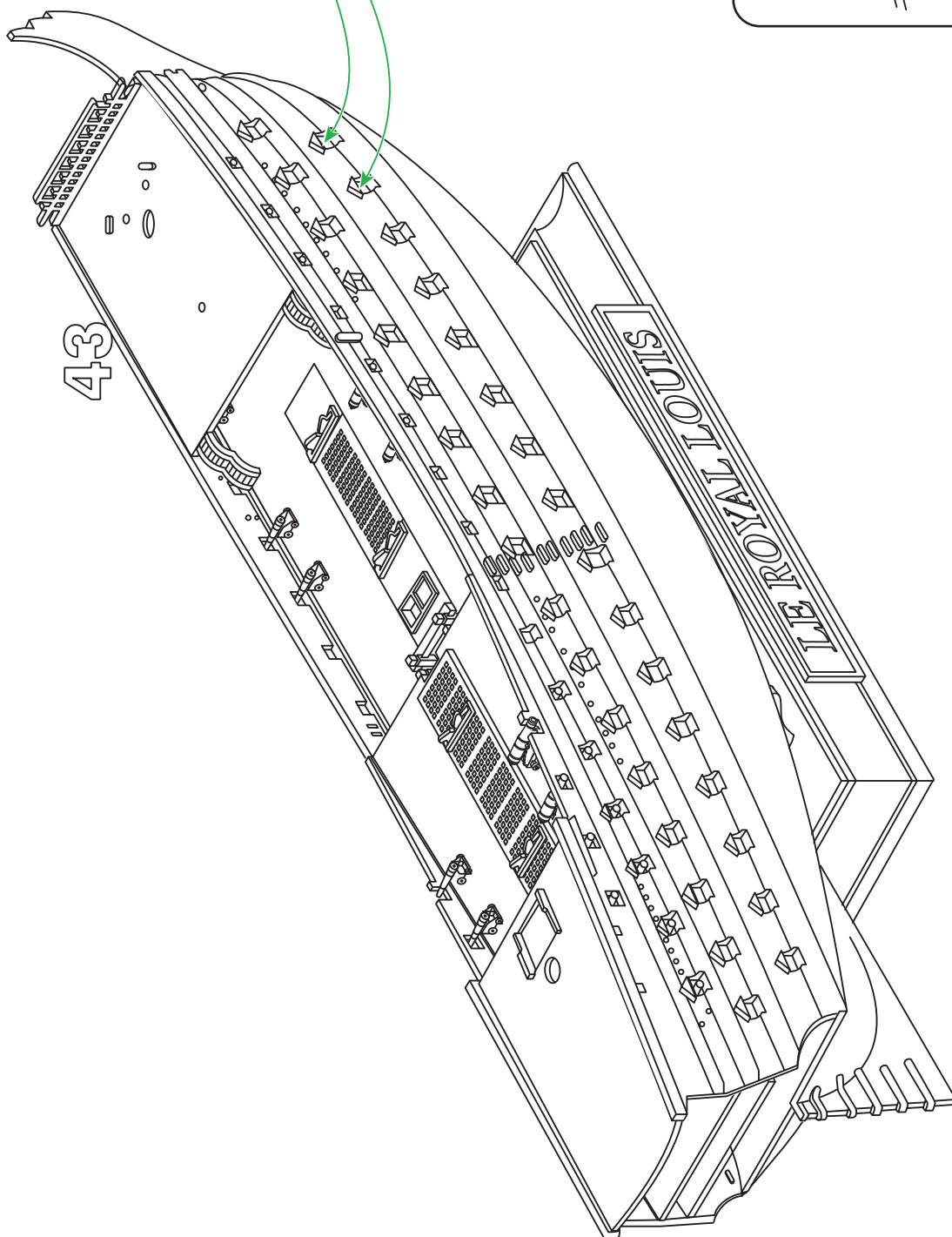
41



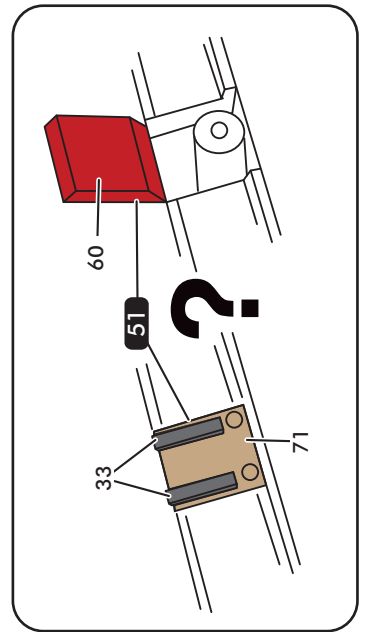
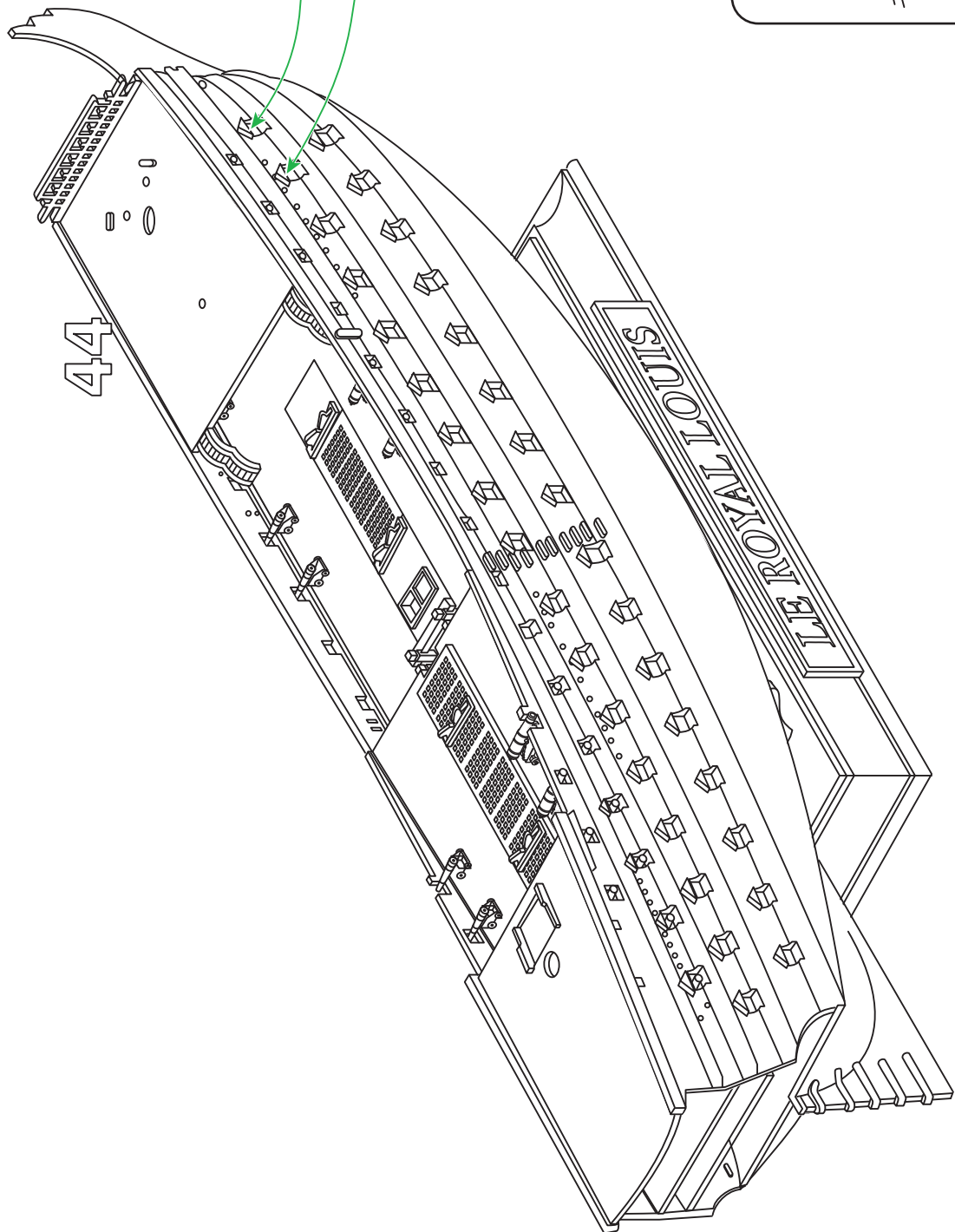
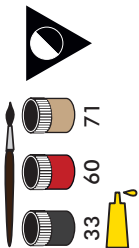




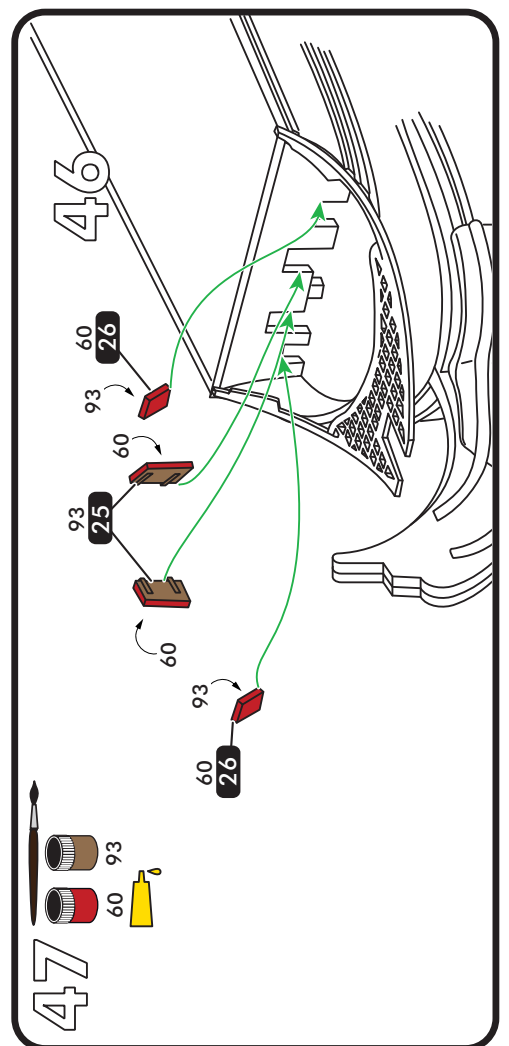
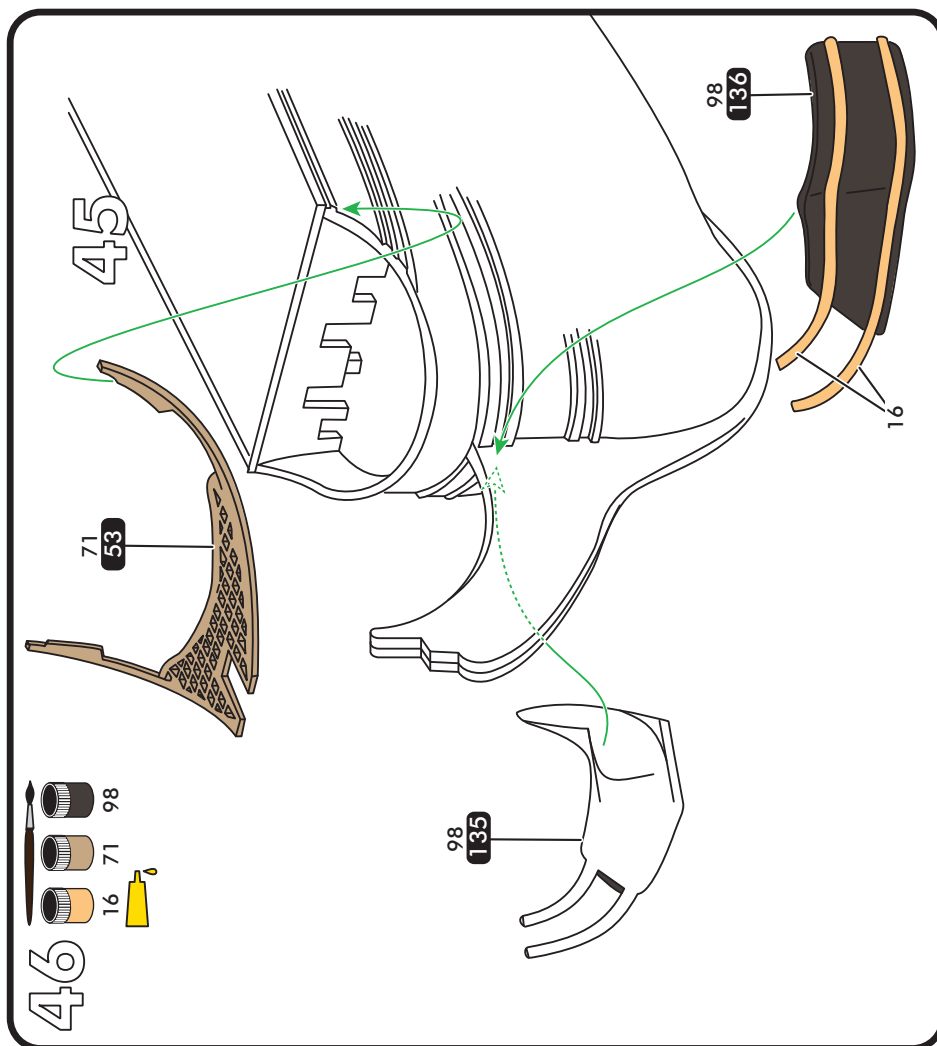
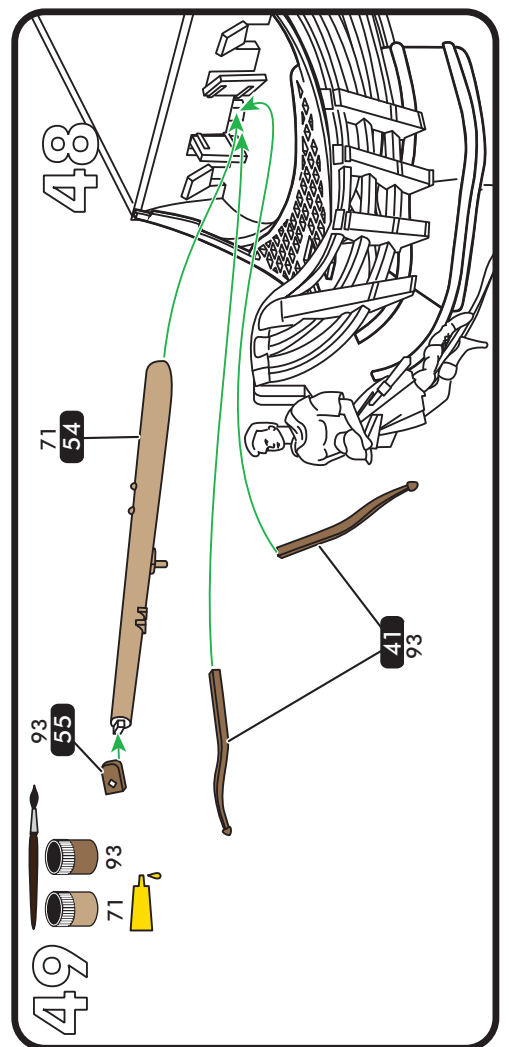
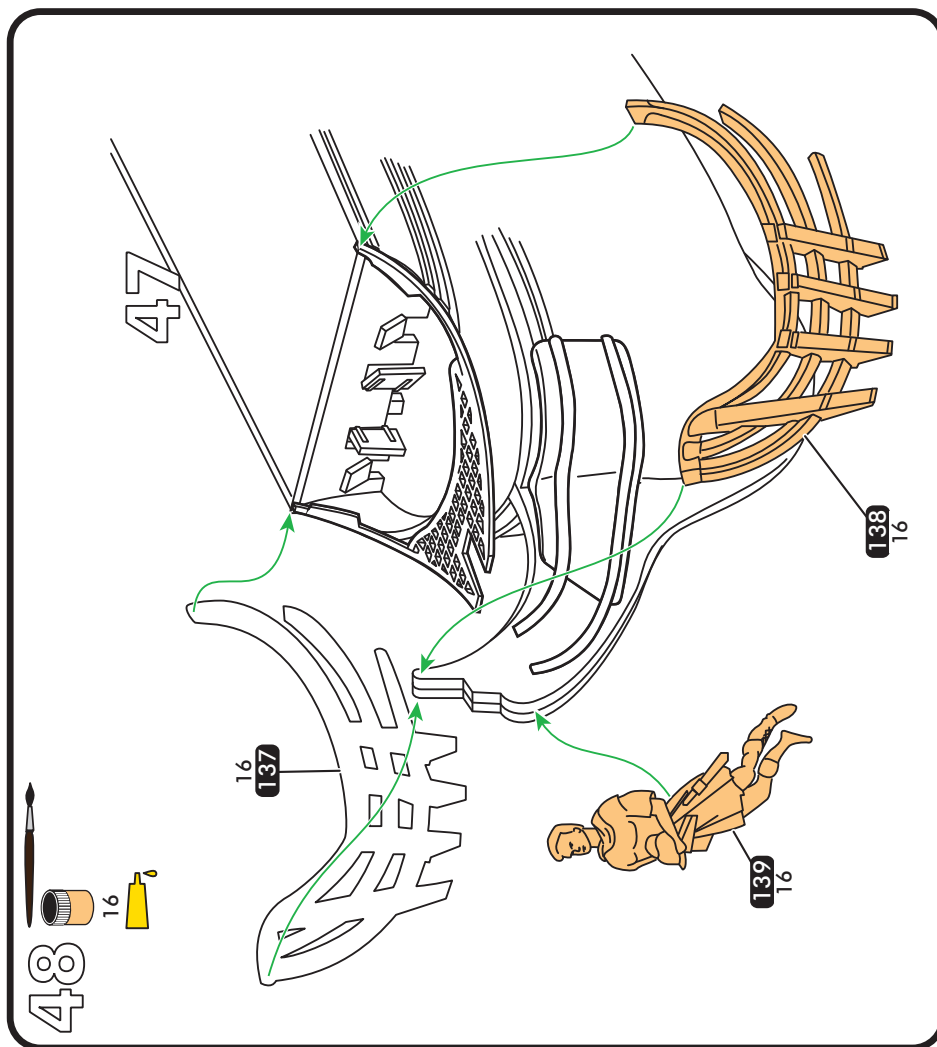
FR : Les sabords doivent être placés ouverts ou fermés en fonction de la présence ou non d'un canon.
 EN : The gunports should be placed open or closed depending on whether there is a cannon or not.
 DE: Die Schießscharten sollten je nach Vorhandensein oder Fehlen einer Kanone geöffnet oder geschlossen sein.
 ES : Los portillos deben colocarse abiertos o cerrados dependiendo de si hay un cañón o no.

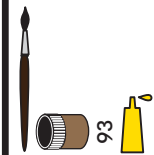


45

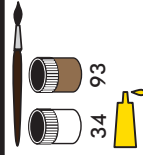
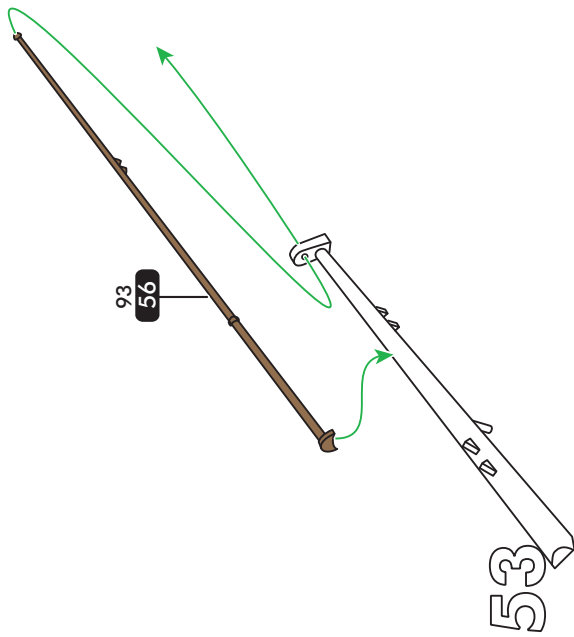


FR : Les sabords doivent être placés ouverts ou fermés en fonction de la présence ou non d'un canon.
 EN : The gunports should be placed open or closed depending on whether there is a cannon or not.
 DE: Die Schießscharten sollten je nach Vorhandensein oder Fehlen einer Kanone geöffnet oder geschlossen sein.
 ES : Los portillos deben colocarse abiertos o cerrados dependiendo de si hay un cañón o no.

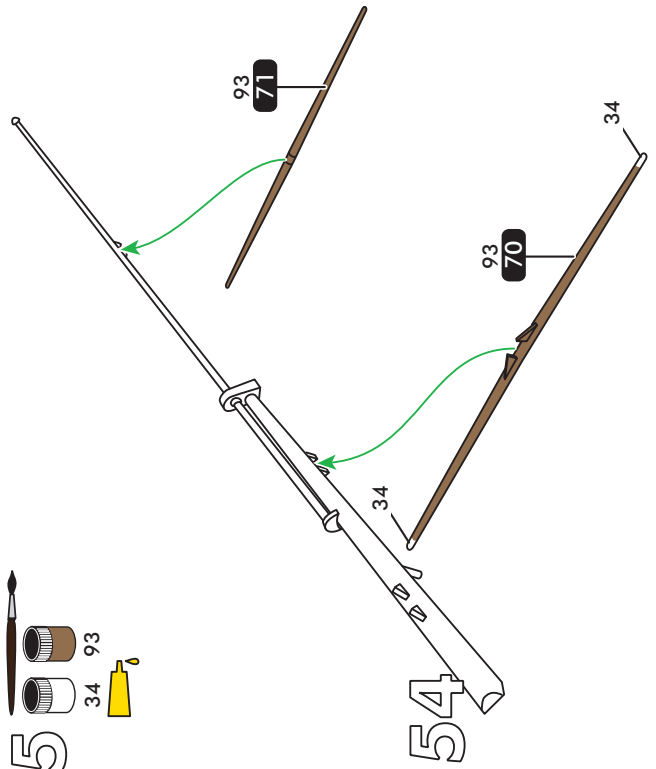




54



55

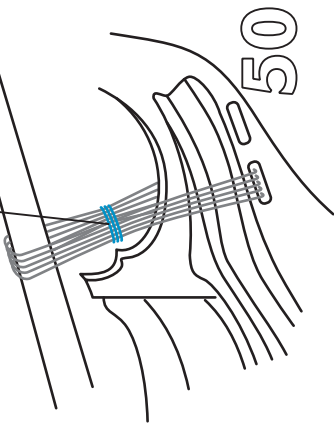


51



Ø 0,3 mm

3 tours
3 turns
3 umdrehungen
3 vueltas

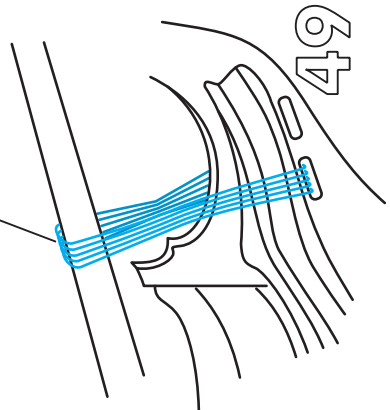


50



Ø 0,3 mm

5 tours
5 turns
5 umdrehungen
5 vueltas

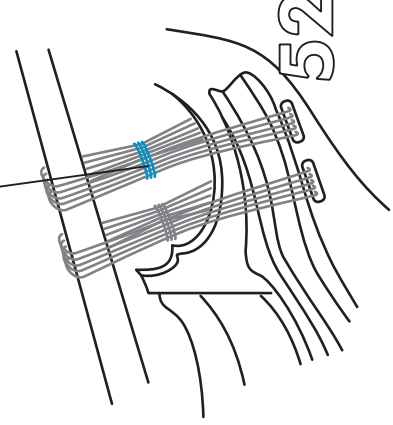


53



Ø 0,3 mm

3 tours
3 turns
3 umdrehungen
3 vueltas

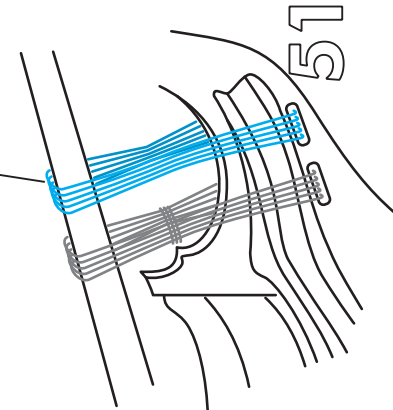


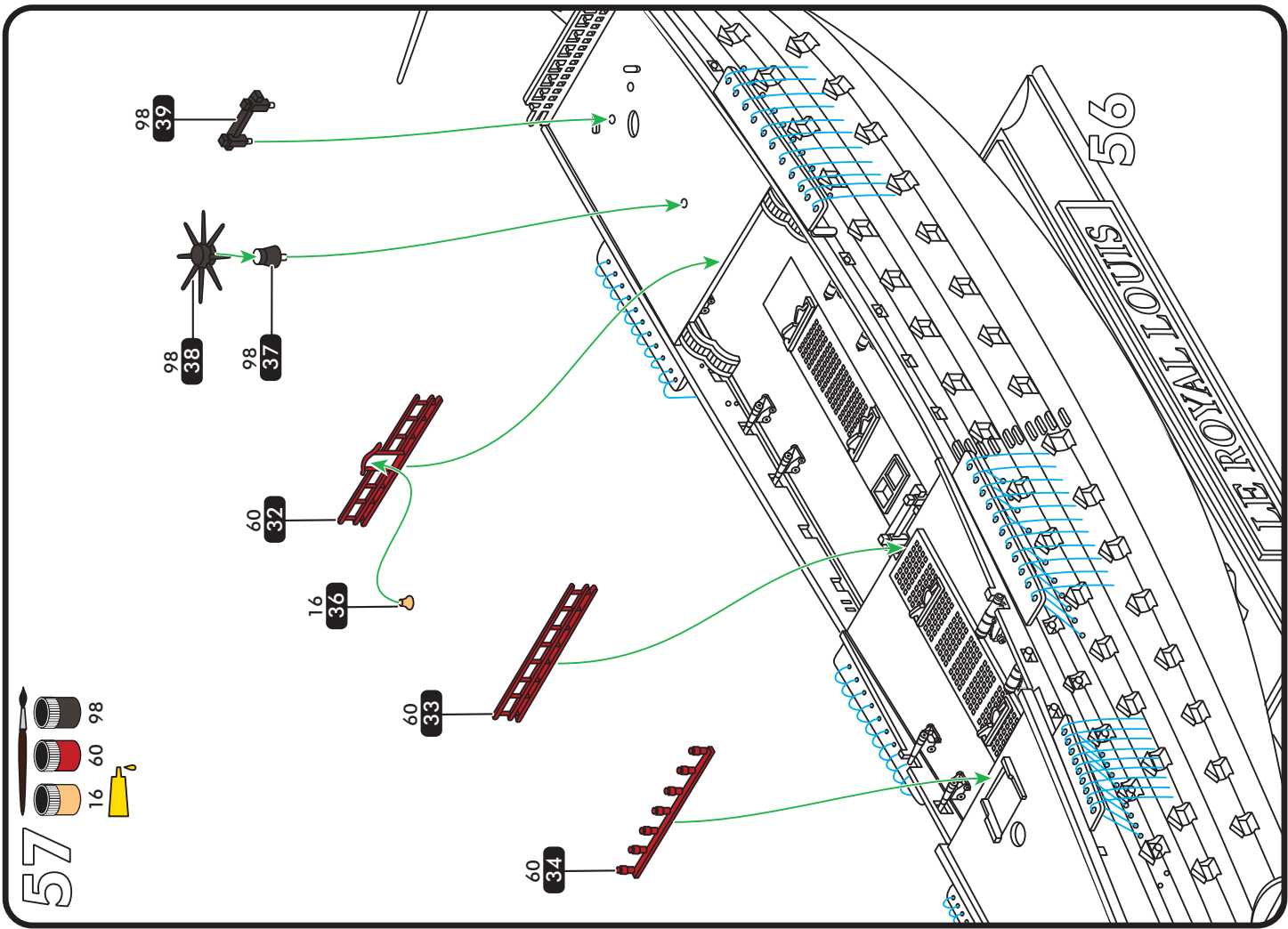
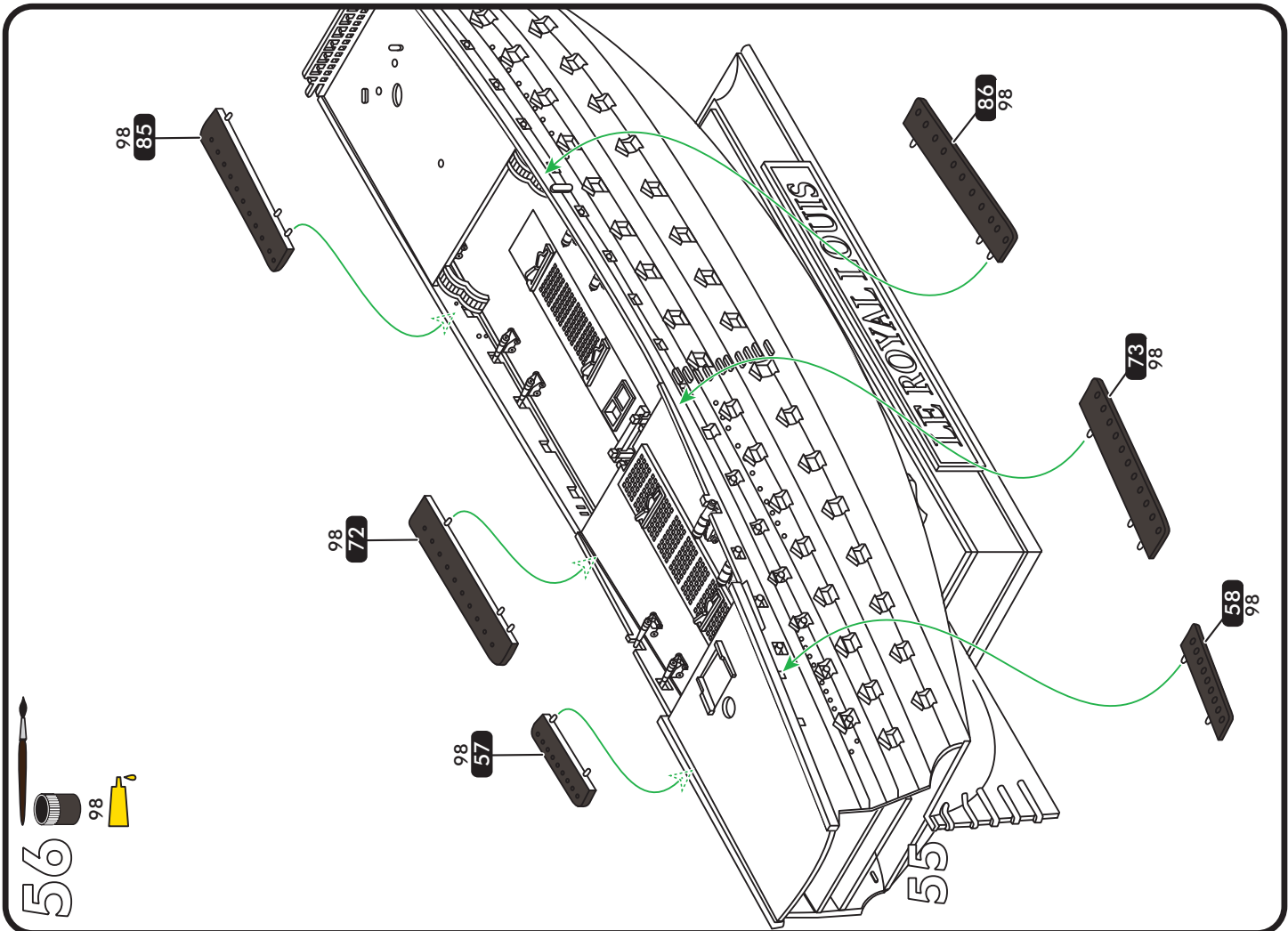
52



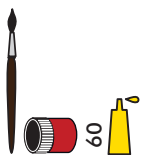
Ø 0,3 mm

5 tours
5 turns
5 umdrehungen
5 vueltas

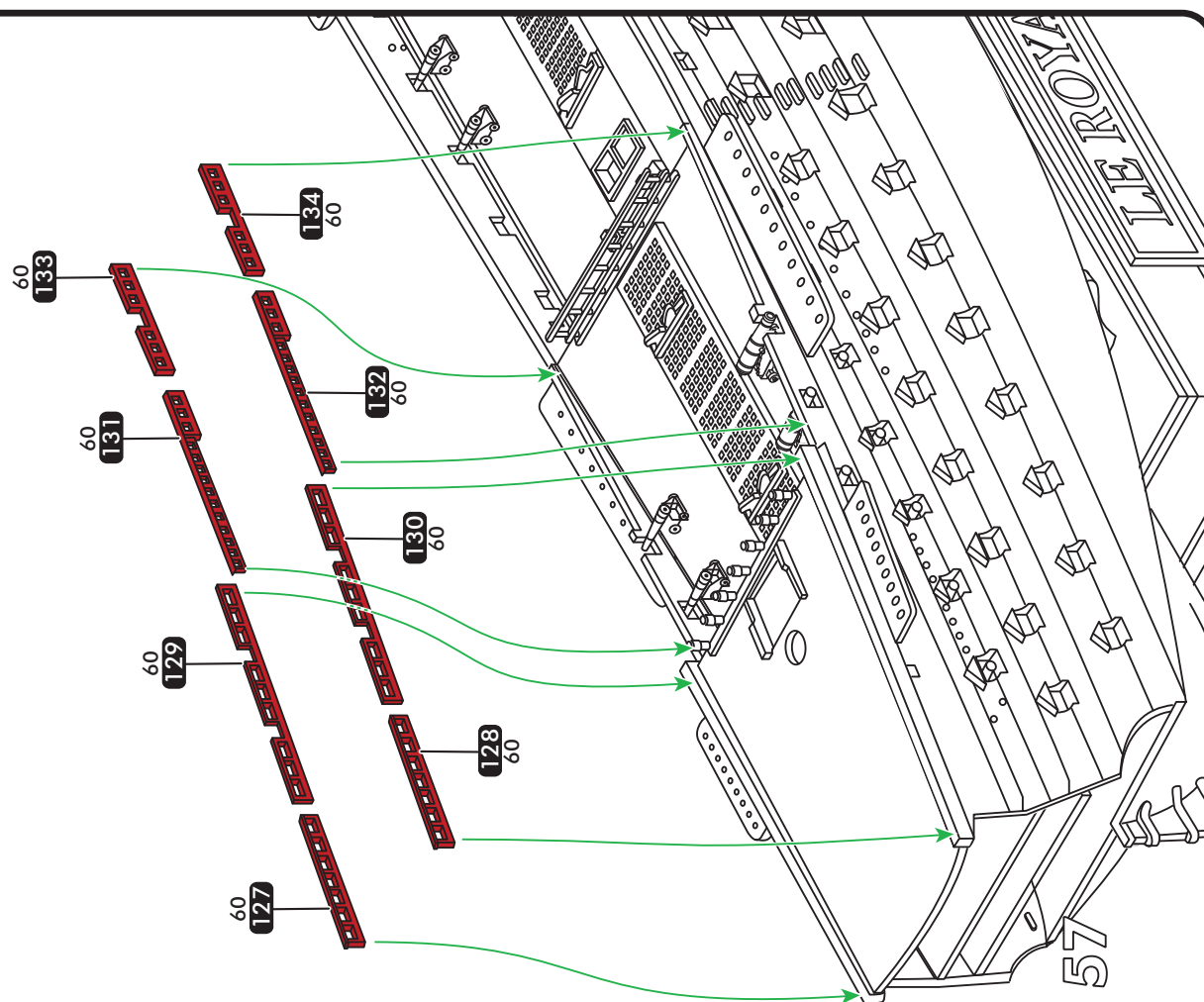




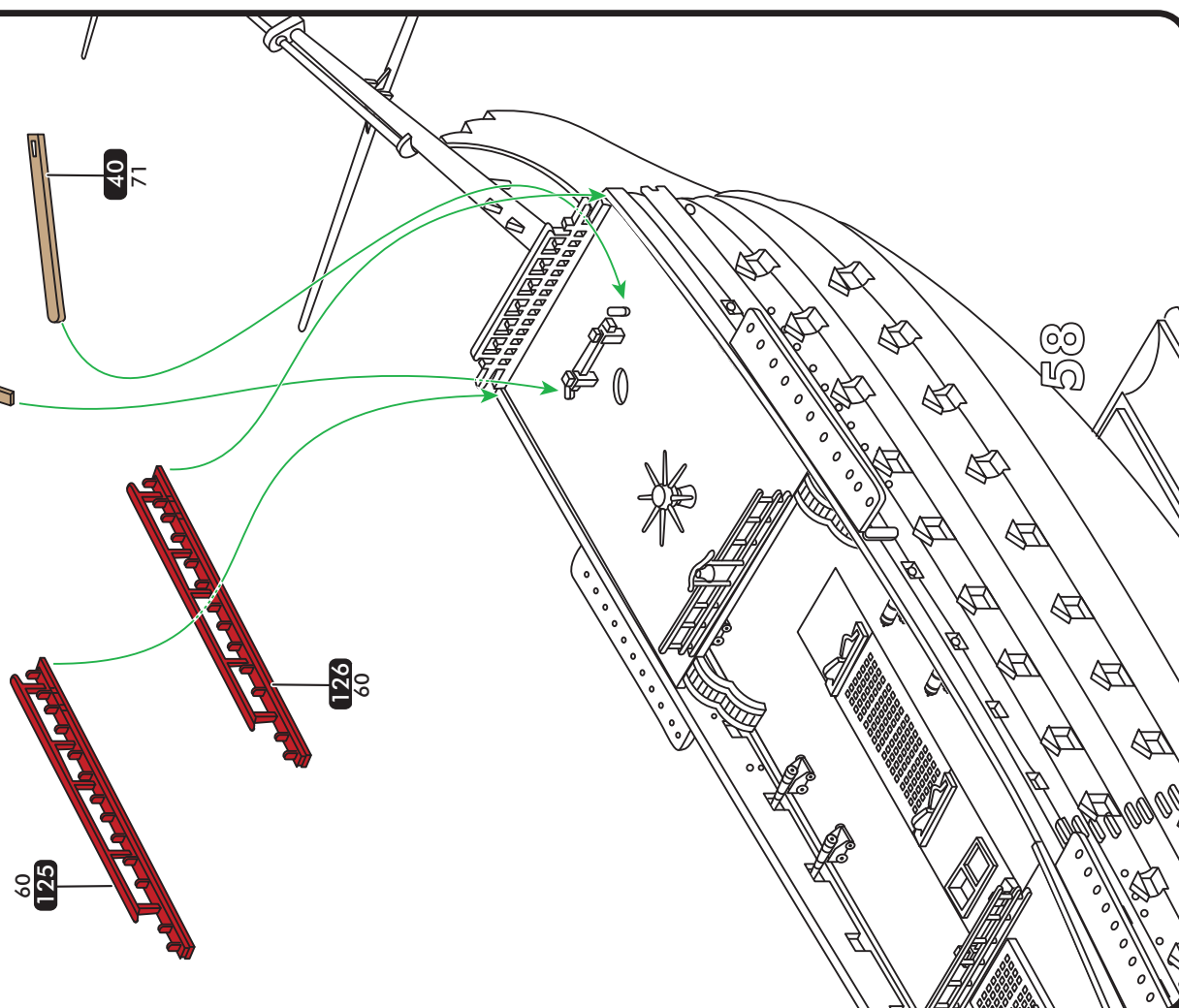
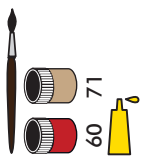
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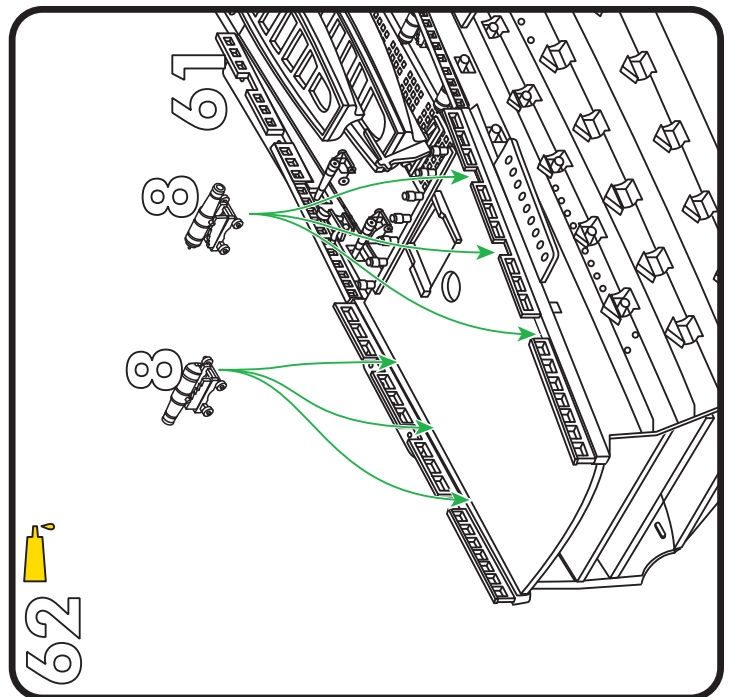
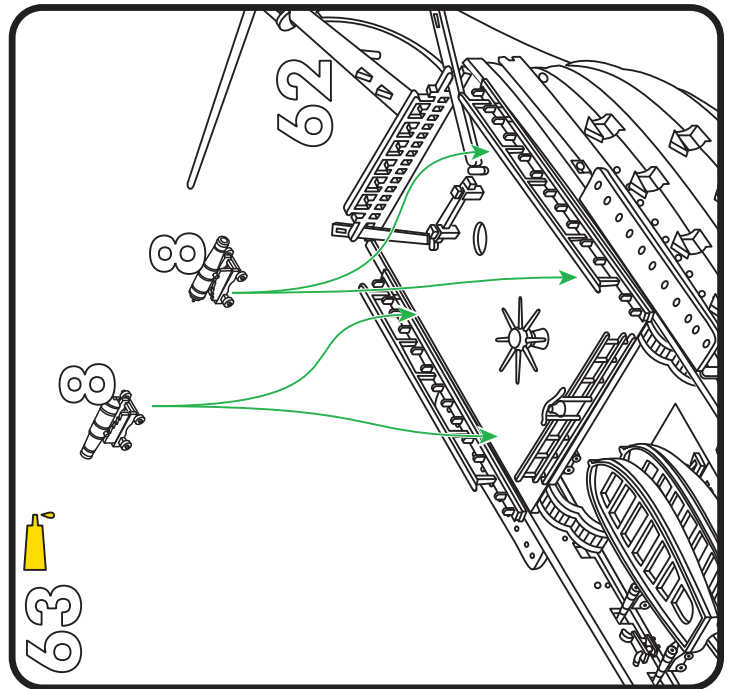
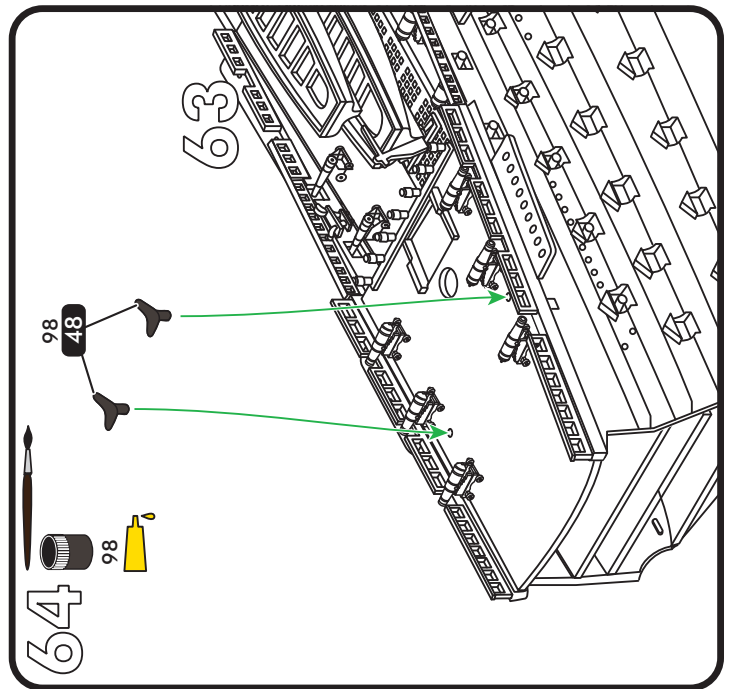
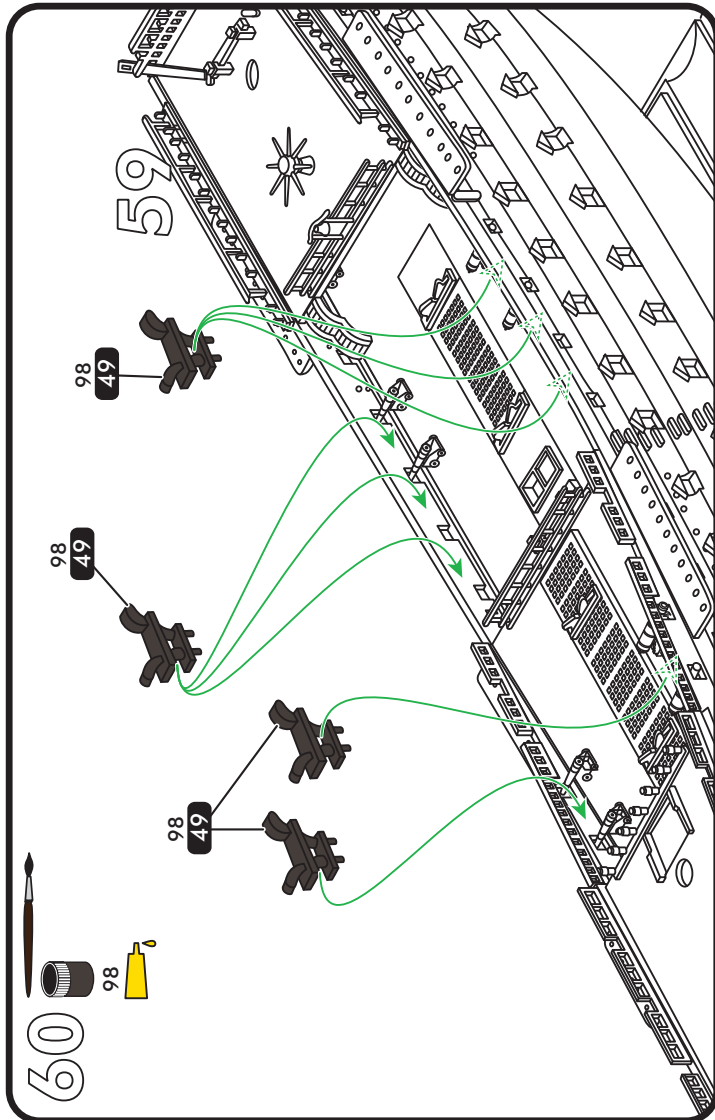
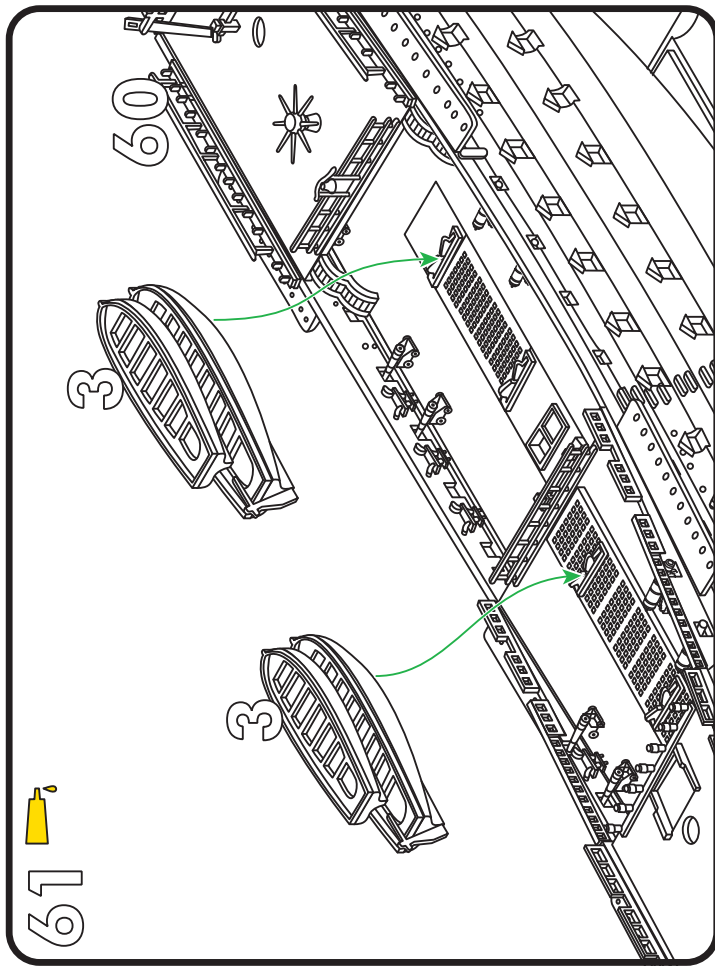


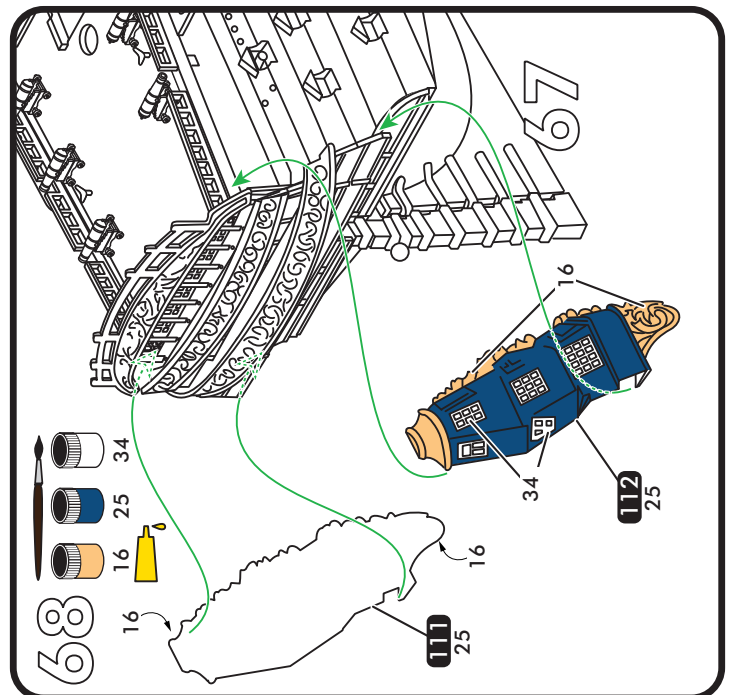
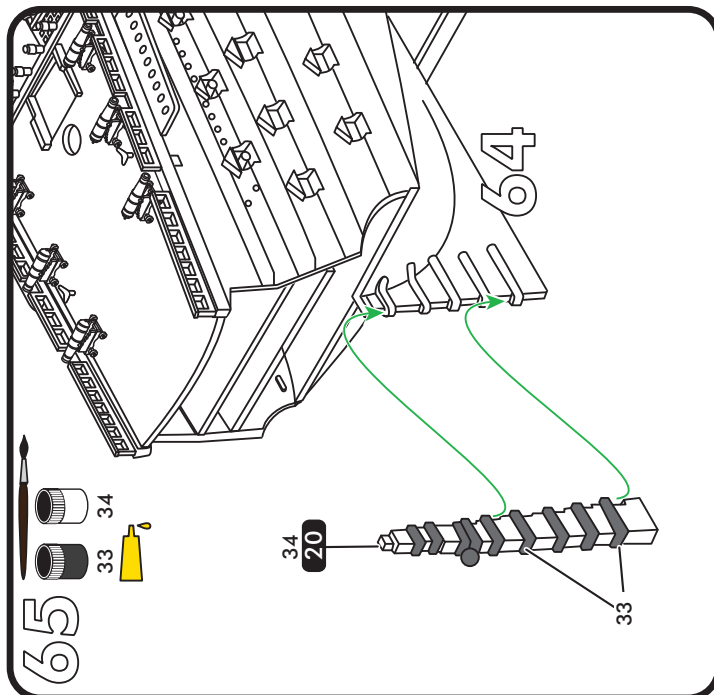
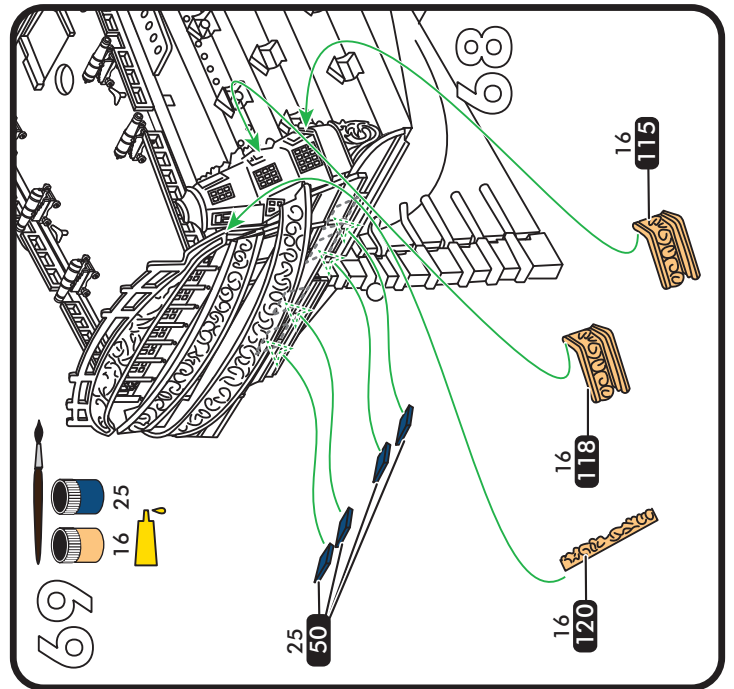
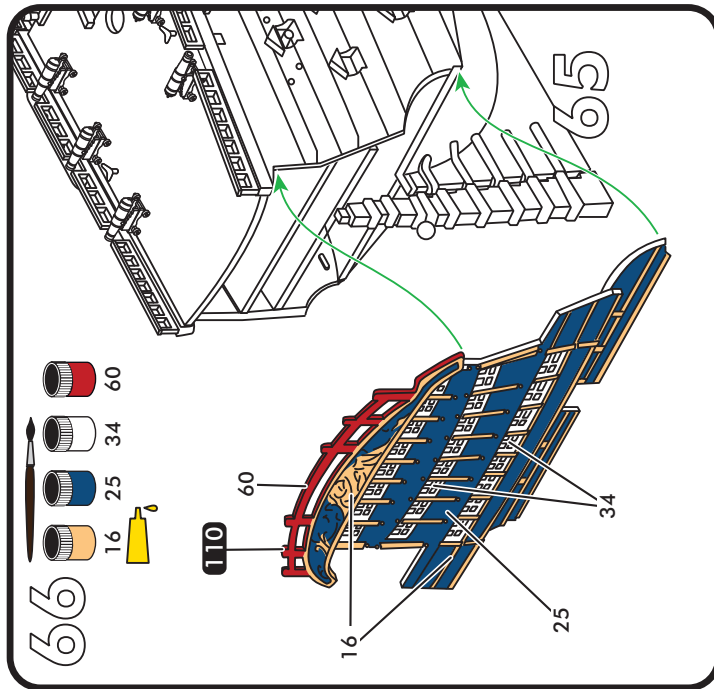
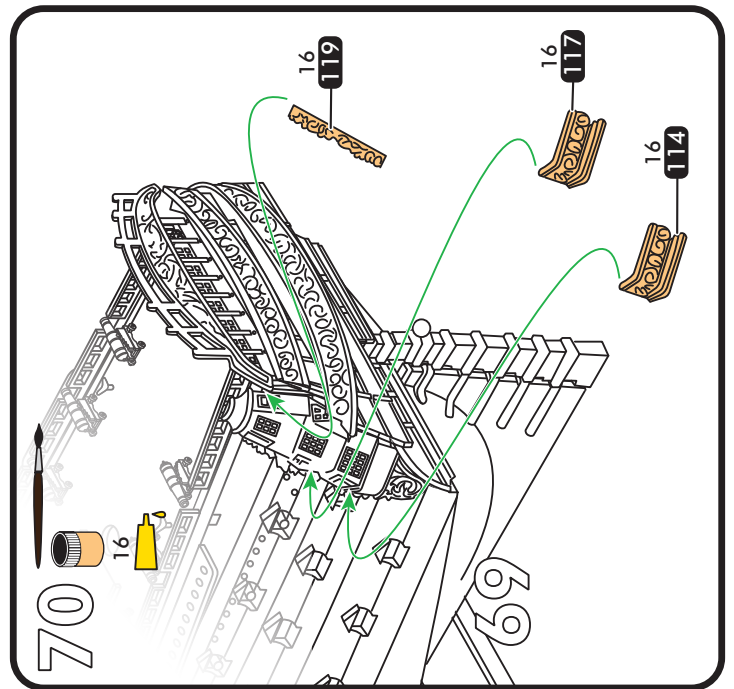
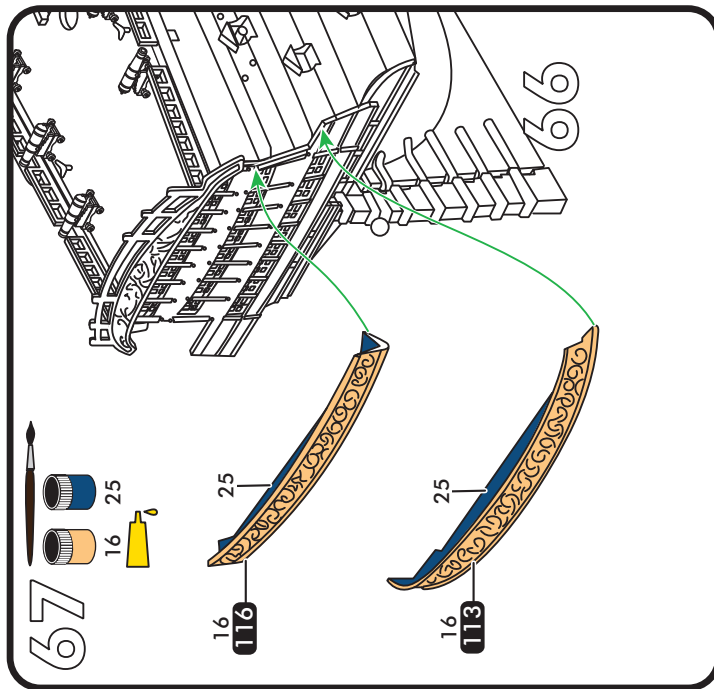
FR : Dans un souci de clarté, toutes les pièces mises en place n'ont pas été redessinées.
 EN : For reasons of clarity, not all parts are shown again.
 DE: Aus Gründen der Klarheit werden nicht alle Teile erneut dargestellt
 ES : En aras de la claridad, no se vuelven a presentar todas las partes.

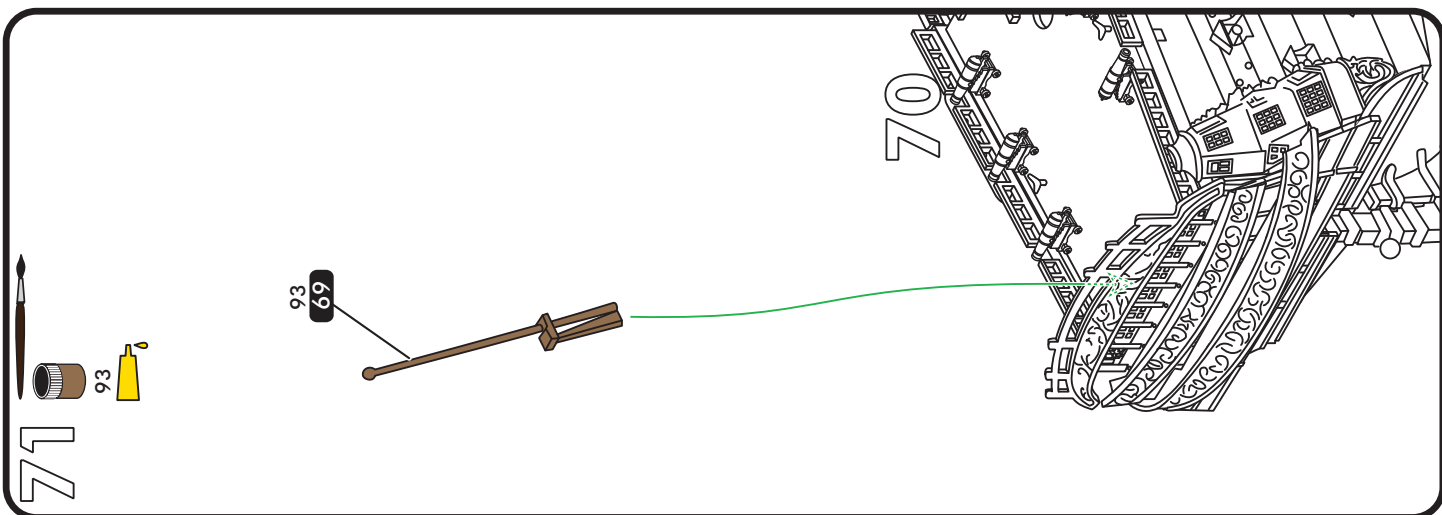
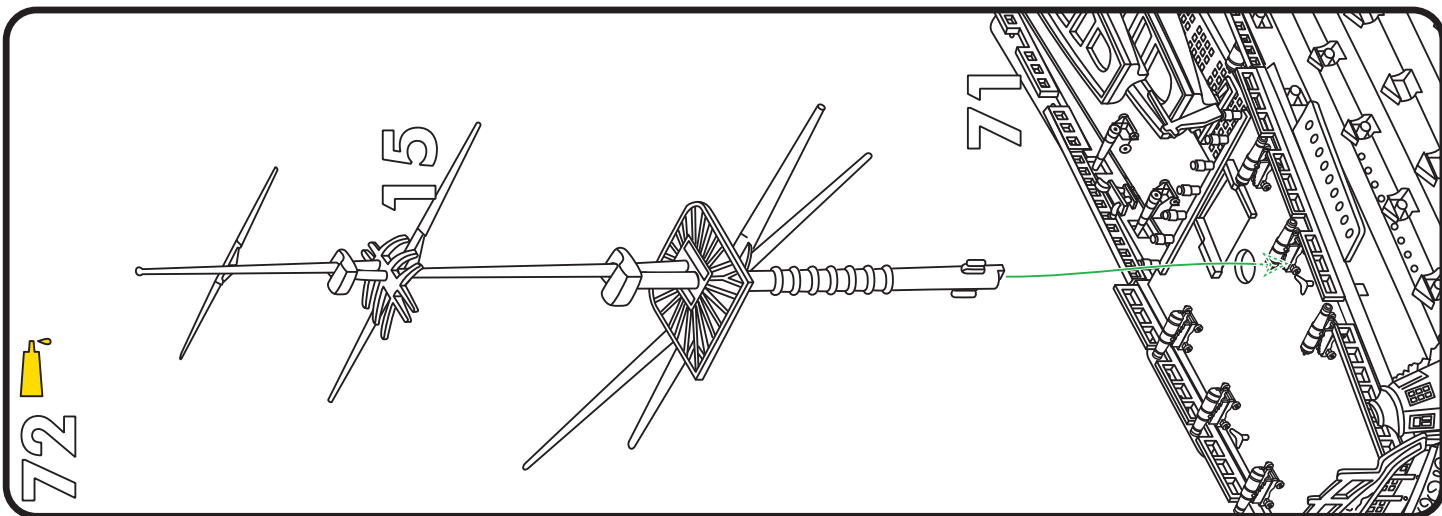
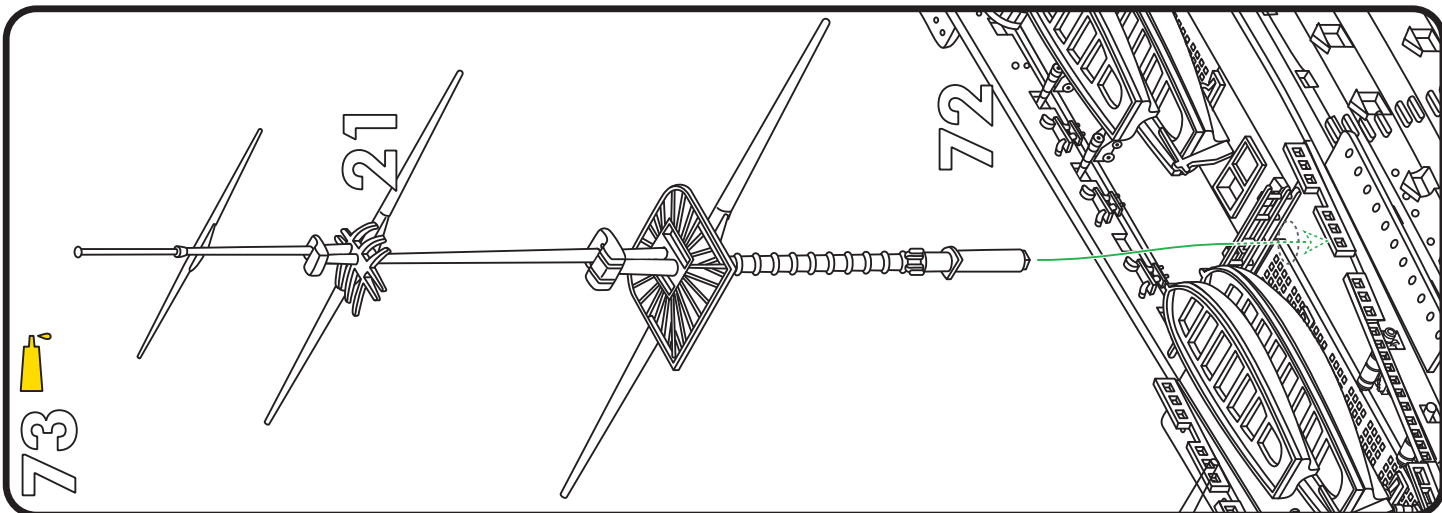
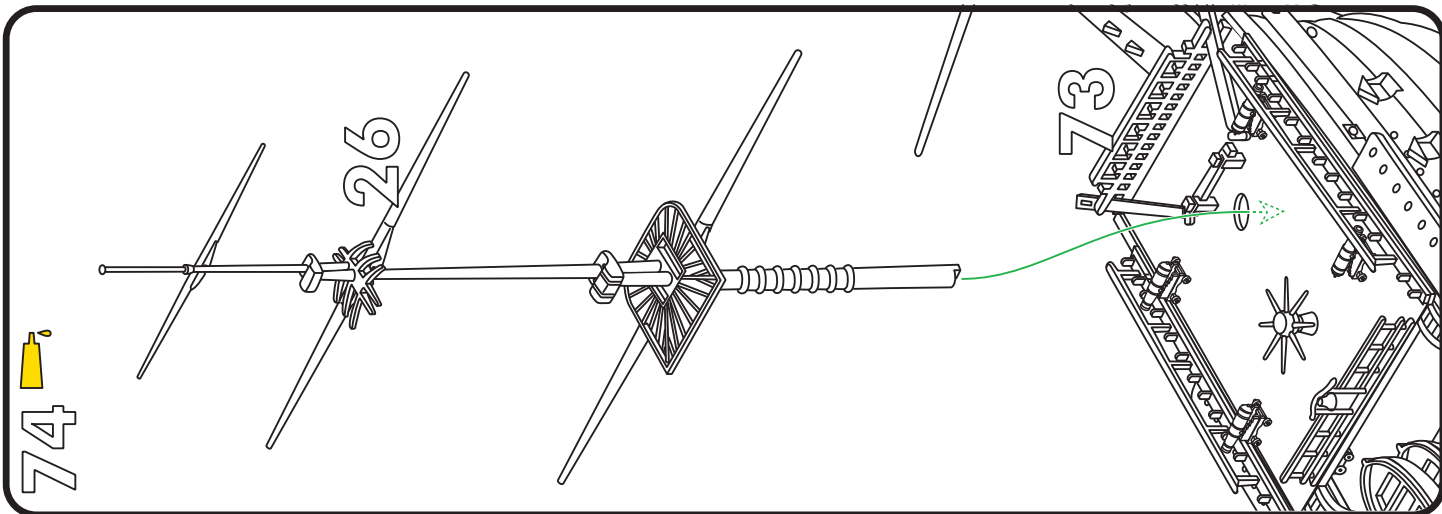


59











Ø 0,3 mm

MACHINE A HAUBANS

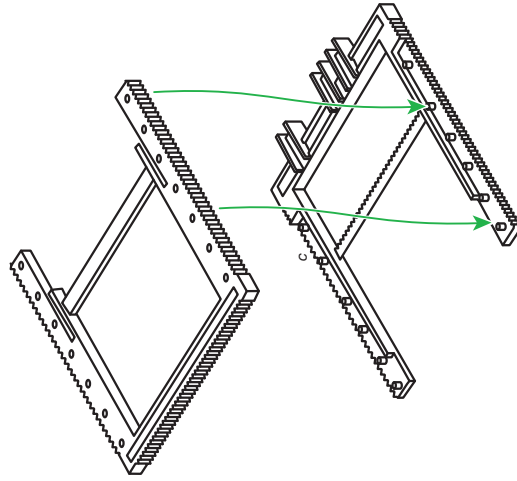
La machine fournie dans la boîte permet de fabriquer des haubans symétriques.

Le passage des fils est indiqué pour chaque montage.

HAUBANS Aa

- 9 fils verticaux (Ø 0,30 mm) aux crans: 10, 13, 16, 20, 24, 27, 31, 34, 37
- 31 fils horizontaux (Ø 0,30 mm) du cran 0 à 30 (tous les crans)

1°) Régler la machine en position C



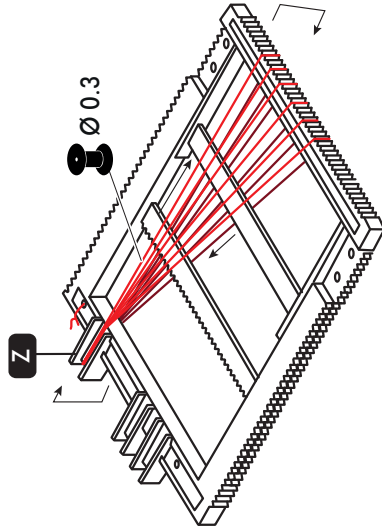
FABRICATION DES HAUBANS

2°) Fils verticaux

Nouer le fil en faisant un boucle au passage Z

Passer la rainure.

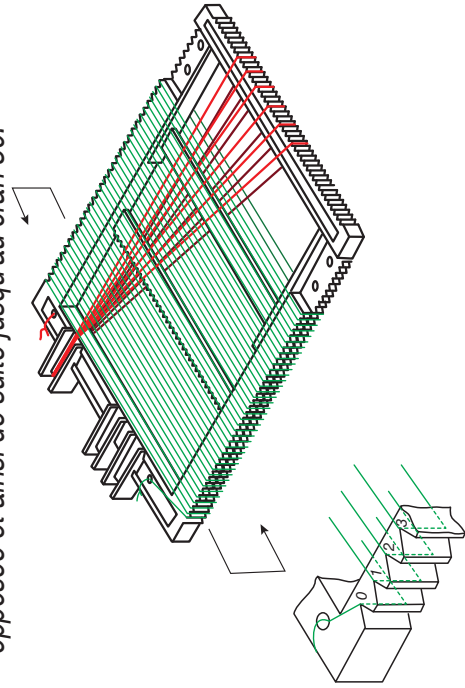
Passer le fil aux crans 10, 13, 16, 20, 24, 27, 31, 34, 37
Le fil doit être tendu.



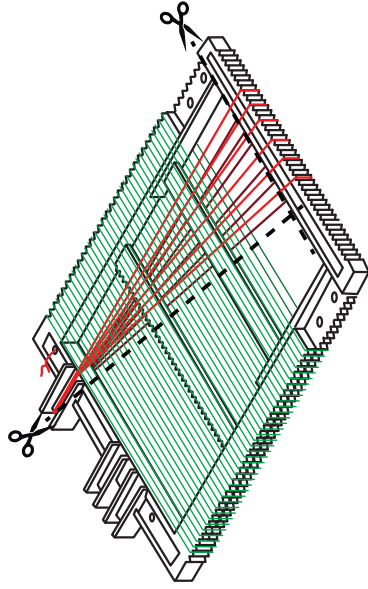
3°) Fils horizontaux

Nouer le fil en faisant un boucle au passage Z, le passer au cran 0 (branche gauche) le faire suivre dans le cran 1 de la branche opposée (branche droite)

revenir dans le cran 1 de la branche de gauche, le faire suivre dans le cran 2 de la branche opposée et ainsi de suite jusqu'au cran 30.



4°) A l'aide d'un pinceau, enduire l'ensemble des fils de colle vinylique légèrement diluée à l'eau.
Après séchage complet, couper les fils horizontaux au ras des extrêmes verticaux, couper ensuite au bas comme indiqué.



HAUBANS Aa

9 fils Ø 0.3 verticaux aux crans: 10, 13, 16, 20, 24, 27, 31, 34, 37
31 fils horizontaux du cran 0 au cran 30 (tous les crans)

HAUBANS Ab

5 fils Ø 0.3 verticaux aux crans: 15, 17, 19, 21, 23

37 fils horizontaux du cran 0 au cran 36 (tous les crans)

HAUBANS Ac

3 fils Ø 0.3 verticaux aux crans: 15, 21, 27

16 fils horizontaux du cran 0 au cran 15 (tous les crans)

HAUBANS Ba

9 fils Ø 0.3 verticaux aux crans: 17, 20, 23, 26, 29, 32, 35, 38, 41

36 fils horizontaux du cran 4 au cran 40 (tous les crans)

HAUBANS Bb

6 fils Ø 0.3 verticaux aux crans: 16, 18, 20, 22, 24, 26

33 fils horizontaux du cran 4 au cran 36 (tous les crans)

HAUBANS Bc

3 fils Ø 0.3 verticaux aux crans: 14, 21, 30

13 fils horizontaux du cran 0 au cran 12 (tous les crans)

HAUBANS Ca

7 fils Ø 0.3 verticaux aux crans: 9, 11, 13, 16, 18, 20, 23

35 fils horizontaux du cran 0 au cran 34 (tous les crans)

HAUBANS Cb

4 fils Ø 0.3 verticaux aux crans: 15, 18, 21, 24

27 fils horizontaux du cran 0 au cran 26 (tous les crans)

HAUBANS Cc

3 fils Ø 0.3 verticaux aux crans: 13, 17, 21

16 fils horizontaux du cran 0 au cran 15 (tous les crans)



Ø 0,3 mm

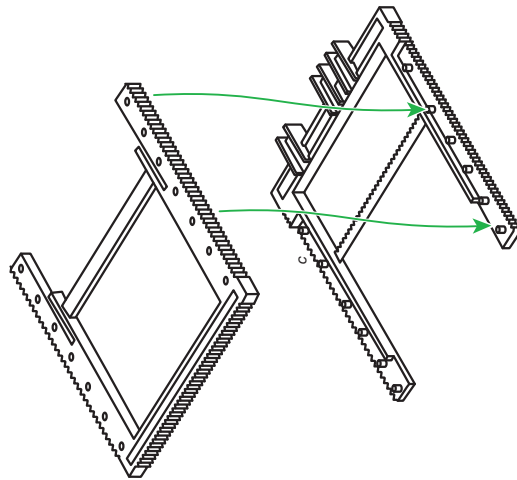
SHROUD MACHINE

The machine supplied in the box allows you to make symmetrical shrouds. The passage of the wires is indicated for each assembly.

SHROUDS Aa

- 9 vertical wires (Ø 0,30 mm) at the notches: 10, 13, 16, 20, 24, 27, 31, 34, 37
- 31 horizontal wires (Ø 0,30 mm) from notch 0 to 30 (all notches)

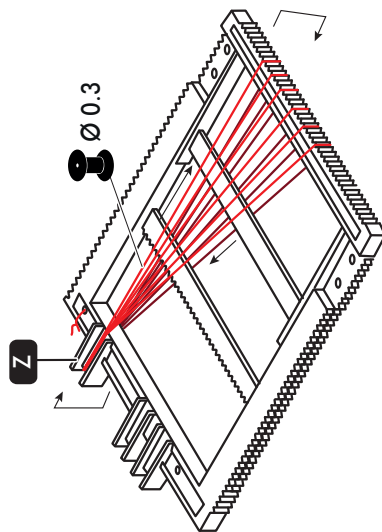
1°) Set the machine to position C



PREPARATION OF SHROUDS

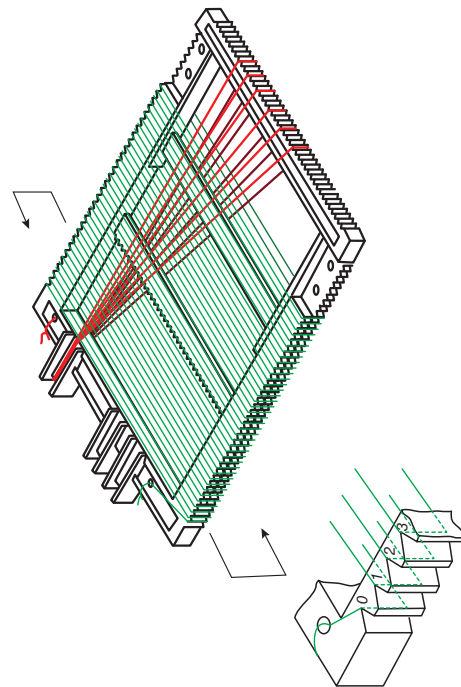
2°) Vertical wires

Tie the wire by making a loop at the Z passage. Pass the groove. Pass the thread through the notches 10, 13, 16, 20, 24, 27, 31, 34, 37. The wire must be taut.

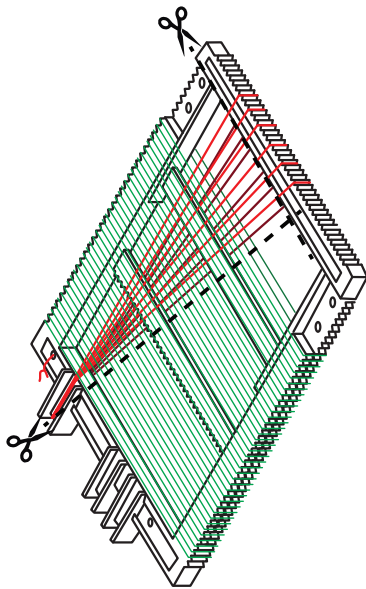


3°) Horizontal wires

Tie the thread in a loop at passage Z, pass it to notch 0 (left branch) and follow it in notch 1 of the opposite branch (right branch) return to notch 1 of the left branch, follow it to notch 2 of the opposite branch and so on until notch 30.



4°) Using a brush, coat all the threads with vinyl glue slightly diluted with water. After drying completely, cut the horizontal wires flush with the vertical vertical ends, then cut at the bottom as shown.



Shrouds Aa

9 wires Ø 0.3 vertical at notches: 10, 13, 16, 20, 24, 27, 31, 34, 37
31 horizontal wires from notch 0 to notch 30 (all notches)

Shrouds Ab

5 wires Ø 0.3 vertical at notches: 15, 17, 19, 21, 23
37 horizontal wires from notch 0 to notch 36 (all notches)

Shrouds Ac

3 wires Ø 0.3 vertical at notches: 15, 21, 27
16 horizontal wires from notch 0 to notch 15 (all notches)

Shrouds Ba

9 wires Ø 0.3 vertical at notches: 17, 20, 23, 26, 29, 32, 35, 38, 41
36 horizontal wires from notch 4 to notch 40 (all notches)

Shrouds Bb

6 wires Ø 0.3 vertical at notches: 16, 18, 20, 22, 24, 26
33 horizontal wires from notch 4 to notch 36 (all notches)

Shrouds Bc

3 wires Ø 0.3 vertical at notches: 14, 21, 30
13 horizontal wires from notch 0 to notch 12 (all notches)

Shrouds Ca

7 wires Ø 0.3 vertical at notches: 9, 11, 13, 16, 18, 20, 23
35 horizontal wires from notch 0 to notch 34 (all notches)

Shrouds Cb

4 wires Ø 0.3 vertical at notches: 15, 18, 21, 24
27 horizontal wires from notch 0 to notch 26 (all notches)

Shrouds Cc

3 wires Ø 0.3 vertical at notches: 13, 17, 21
16 horizontal wires from notch 0 to notch 15 (all notches)



Ø 0,3 mm

WANTENMASCHINE

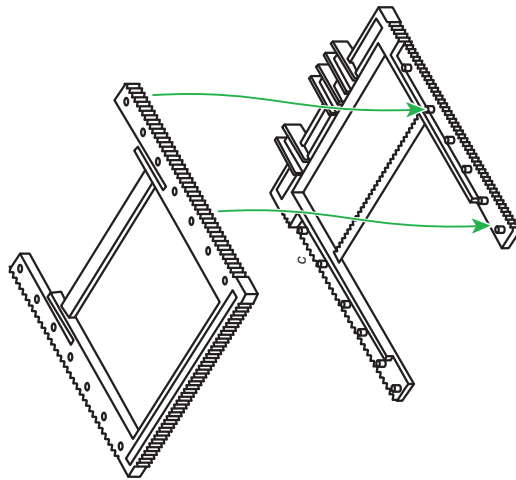
Die in der Verpackung mitgelieferte Maschine ermöglicht die Herstellung von symmetrischen Wanten.

Die Seilführung ist für jede Baugruppe angegeben.

WANTEN Aa

- 9 vertikale Seile (Ø 0,30 mm) an den Raststellen: 10, 13, 16, 20, 24, 27, 31, 34, 37
- 31 horizontale Seile (Ø 0,30 mm) von Raste 0 bis 30 (beide Kerben)

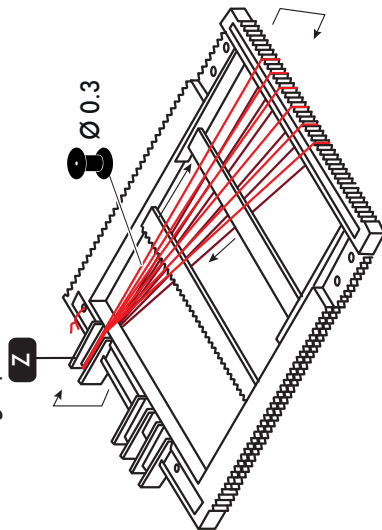
1°) Stellen Sie die Maschine auf Position C



VORBEREITUNG VON WANTEN

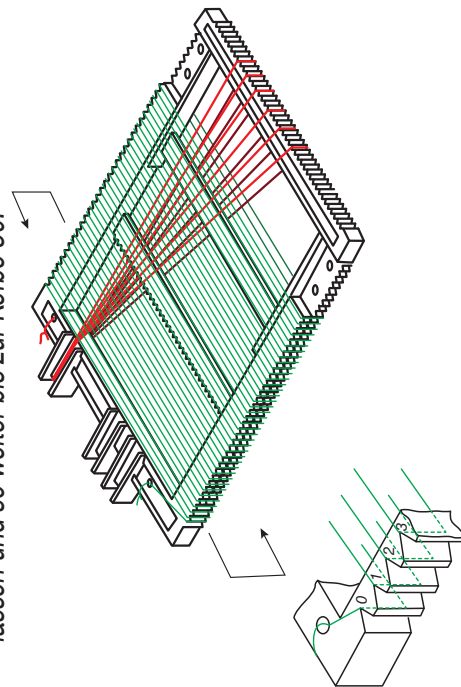
2°) Vertikale Seile

Knüpfen Sie den Faden mit einer Schlaufe an der Stelle Z. Führen Sie den Faden durch die Rille. Den Faden durch die Rastungen 10, 13, 16, 20, 24, 27, 31, 34, 37 führen. Der Faden muss gespannt sein.



3°) Horizontale Seile

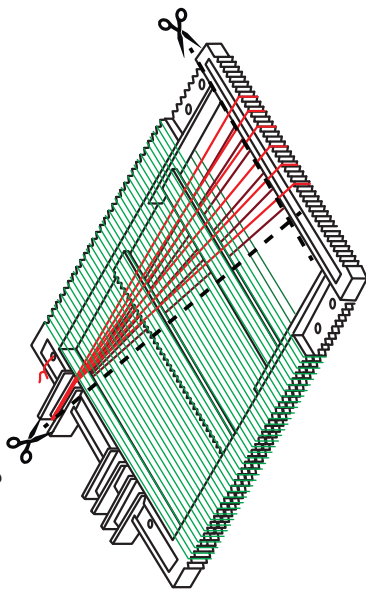
Knüpfen Sie den Faden mit einer Schlinge am Übergang Z, führen Sie ihn durch die Kerbe 0 (linker Zweig), lassen Sie ihn in die Kerbe 1 des gegenüberliegenden Zweigs (rechter Zweig) folgen. Zurück in die Kerbe 1 des linken Zweiges, ihn in die Kerbe 2 des gegenüberliegenden Zweiges folgen lassen und so weiter bis zur Kerbe 30.



4°) Bestreiche alle Seile mit einem Pinsel mit Vinylkleber, der leicht mit Wasser verdünnt wurde.

Nachdem die Fäden vollständig getrocknet sind, schneiden Sie die horizontalen Fäden bündig mit den äußersten Enden ab.

Anschließend werden sie wie beschrieben an der Unterseite abgeschnitten.



WANTEN Aa

9 Fäden Ø 0,3 vertikal in den Rasten: 10, 13, 16, 20, 24, 27, 31, 34, 37
31 horizontale Fäden von Raste 0 bis Raste 30 (alle Rasten)

WANTEN Ab

5 Fäden Ø 0,3 vertikal in den Rasten: 15, 17, 19, 21, 23

37 horizontale Fäden von Raste 0 bis Raste 36 (alle Rasten)

WANTEN Ac

3 Fäden Ø 0,3 vertikal in den Rasten: 15, 21, 27

16 horizontale Fäden von Raste 0 bis Raste 15 (alle Rasten)

WANTEN Ba

9 Fäden Ø 0,3 vertikal in den Rasten: 17, 20, 23, 26, 29, 32, 35, 38, 41

36 horizontale Fäden von Raste 4 bis Raste 40 (alle Rasten)

WANTEN Bb

6 Fäden Ø 0,3 vertikal bei den Rasten: 16, 18, 20, 22, 24, 26

33 horizontale Fäden von Raste 4 bis Raste 36 (alle Rasten)

WANTEN Bc

3 Fäden Ø 0,3 vertikal bei den Rasten: 14, 21, 30

13 horizontale Fäden von Raste 0 bis Raste 12 (alle Rasten)

WANTEN Ca

7 Fäden Ø 0,3 vertikal in den Rasten: 9, 11, 13, 16, 18, 20, 23

35 horizontale Fäden von Raste 0 bis Raste 34 (alle Rasten)

WANTEN Cb

4 Fäden Ø 0,3 vertikal in den Rasten: 15, 18, 21, 24

27 horizontale Fäden von Raste 0 bis Raste 26 (alle Rasten)

WANTEN Cc

3 Fäden Ø 0,3 vertikal in den Rasten: 13, 17, 21

16 horizontale Fäden von Raste 0 bis Raste 15 (alle Rasten)



Ø 0,3 mm

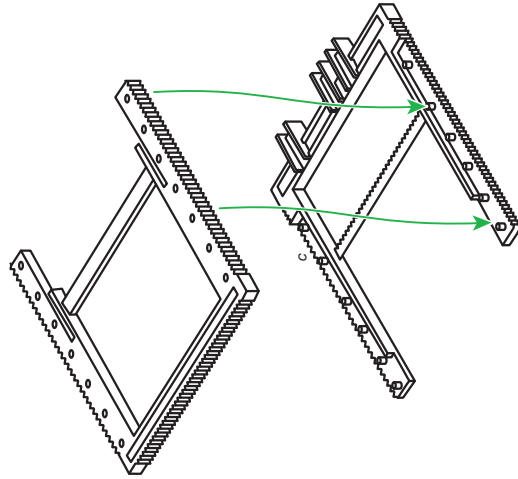
MÁQUINA DE OBENQUES

La máquina suministrada en la caja permite fabricar obenques simétricos. Para cada montaje se indica el paso de los cables.

OBENQUES Aa

- 9 hilos verticales (Ø 0,30 mm) en las siguientes muescas: 10, 13, 16, 20, 24, 27, 31, 34, 37
- 31 hilos horizontales (Ø 0,30 mm) de la muesca 0 a la 30 (todas las muescas)

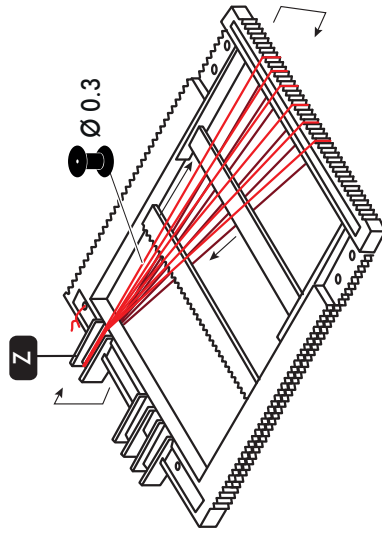
1º) Poner la máquina en la posición C



FABRICACIÓN DE LOS OBENQUES

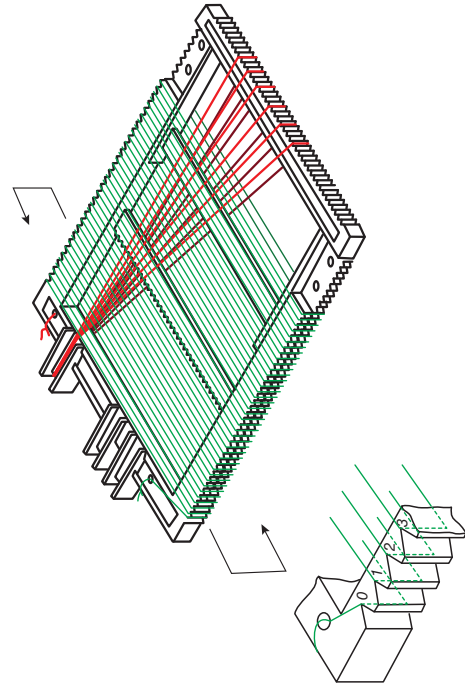
2º) Cables verticales

Ate el cable en un bucle en el paso Z Pase la ranura. Pase el hilo por las muescas 10, 13, 16, 20, 24, 27, 31, 34, 37
El hilo debe estar tenso.



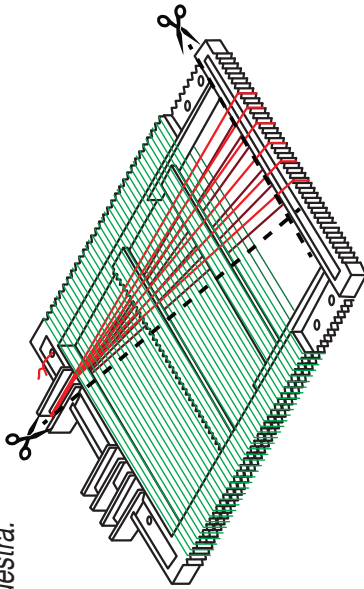
3º) Cables horizontales

Anudar el hilo en un bucle en el paso Z, pasarlo a la muesca 0 (rama izquierda) y seguirlo en la muesca 1 de la rama opuesta (rama derecha), volver a la muesca 1 de la rama izquierda, seguir hasta la muesca 2 de la rama opuesta y así hasta la muesca 30.



4º) Con un pincel, cubre todos los cables con cola vinílica ligeramente diluida en agua.

Después de que se haya secado por completo, corte los cables horizontales a ras de los extremos verticales, y luego corte en la parte inferior como se muestra.



OBENQUES Aa

9 hilos Ø 0,3 vertical en las muescas: 10, 13, 16, 20, 24, 27, 31, 34, 37
31 vertical en las muescas 0 hasta la muesca 30 (todas las muescas)

OBENQUES Ab

5 hilos Ø 0,3 vertical en las muescas: 15, 17, 19, 21, 23
37 vertical en las muescas 0 hasta la muesca 36 (todas las muescas)

OBENQUES Ac

3 hilos Ø 0,3 vertical en las muescas: 15, 21, 27

OBENQUES Ba

16 vertical en las muescas 0 hasta la muesca 15 (todas las muescas)

OBENQUES Bb

9 hilos Ø 0,3 vertical en las muescas: 17, 20, 23, 26, 29, 32, 35, 38, 41
36 hilos horizontales desde la muesca 4 hasta la 40 (todas las muescas)

OBENQUES Bb

6 hilos Ø 0,3 vertical en las muescas: 16, 18, 20, 22, 24, 26

33 hilos horizontales desde la muesca 4 hasta la 36 (todas las muescas)

OBENQUES Bc

3 hilos Ø 0,3 vertical en las muescas: 14, 21, 30

13 hilos horizontales desde la muesca 0 hasta la 12 (todas las muescas)

OBENQUES Ca

7 hilos Ø 0,3 vertical en las muescas: 9, 11, 13, 16, 18, 20, 23

35 hilos horizontales desde la muesca 0 hasta la 34 (todas las muescas)

OBENQUES Cb

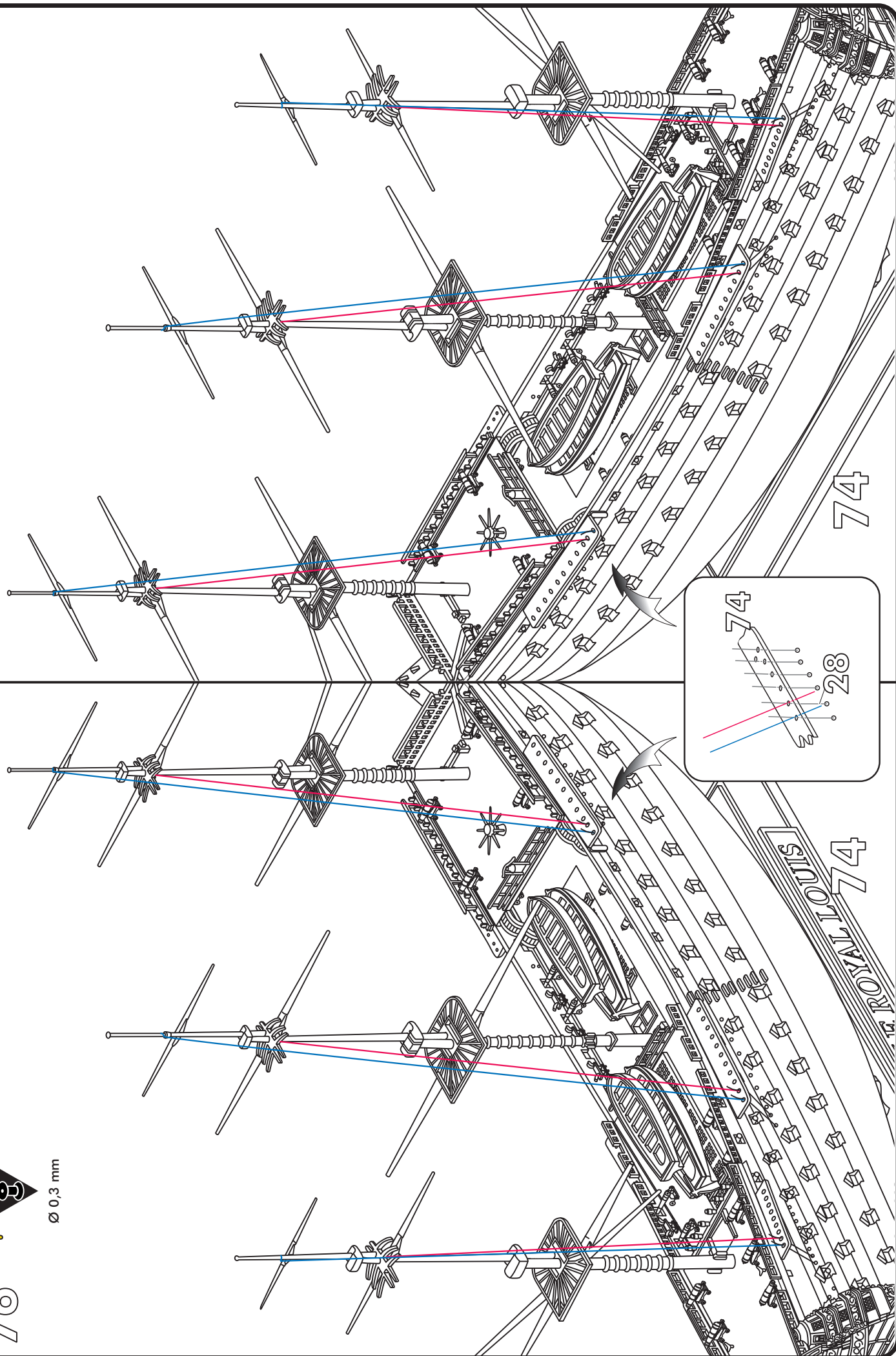
4 hilos Ø 0,3 vertical en las muescas: 15, 18, 21, 24

27 hilos horizontales desde la muesca 0 hasta la muesca 26 (todas las muescas)

OBENQUES Cc

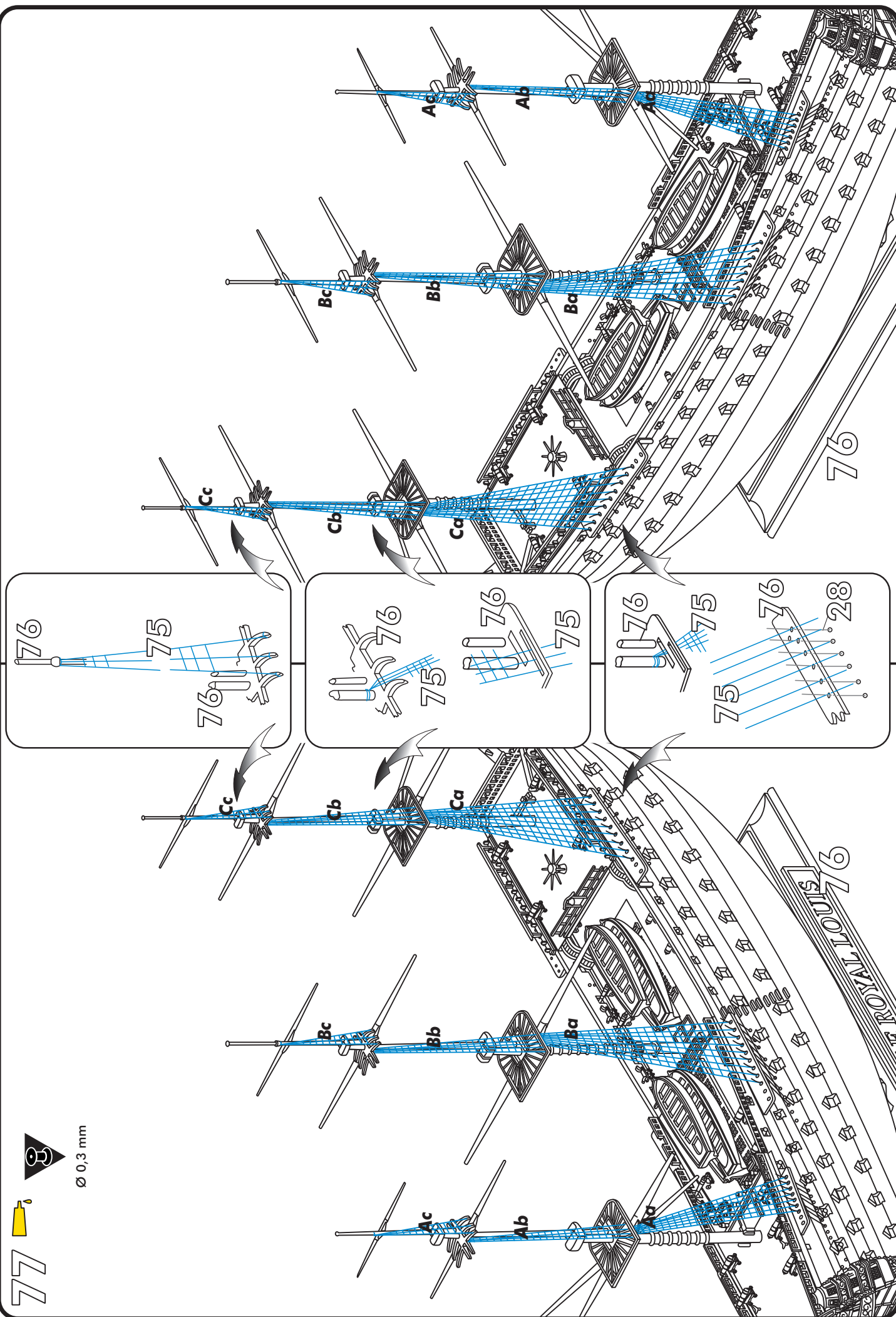
3 hilos Ø 0,3 vertical en las muescas: 13, 17, 21

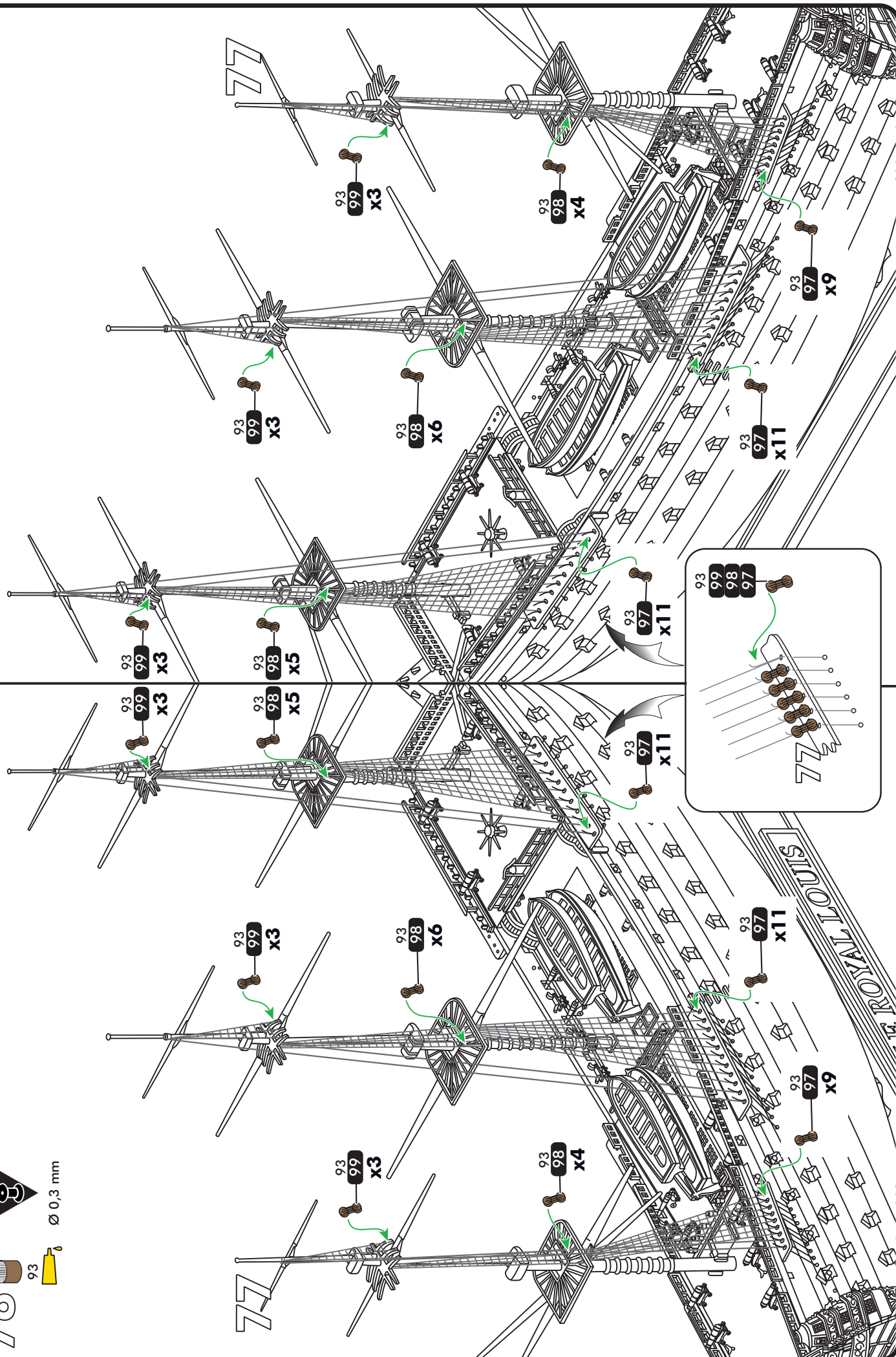
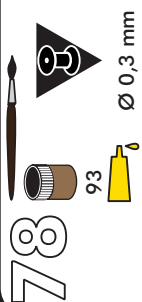
16 hilos horizontales desde la muesca 0 hasta la muesca 15 (todas las muescas)





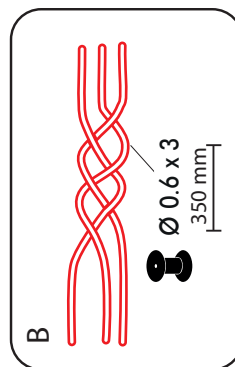
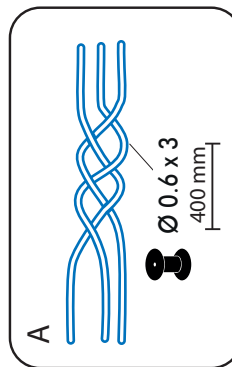
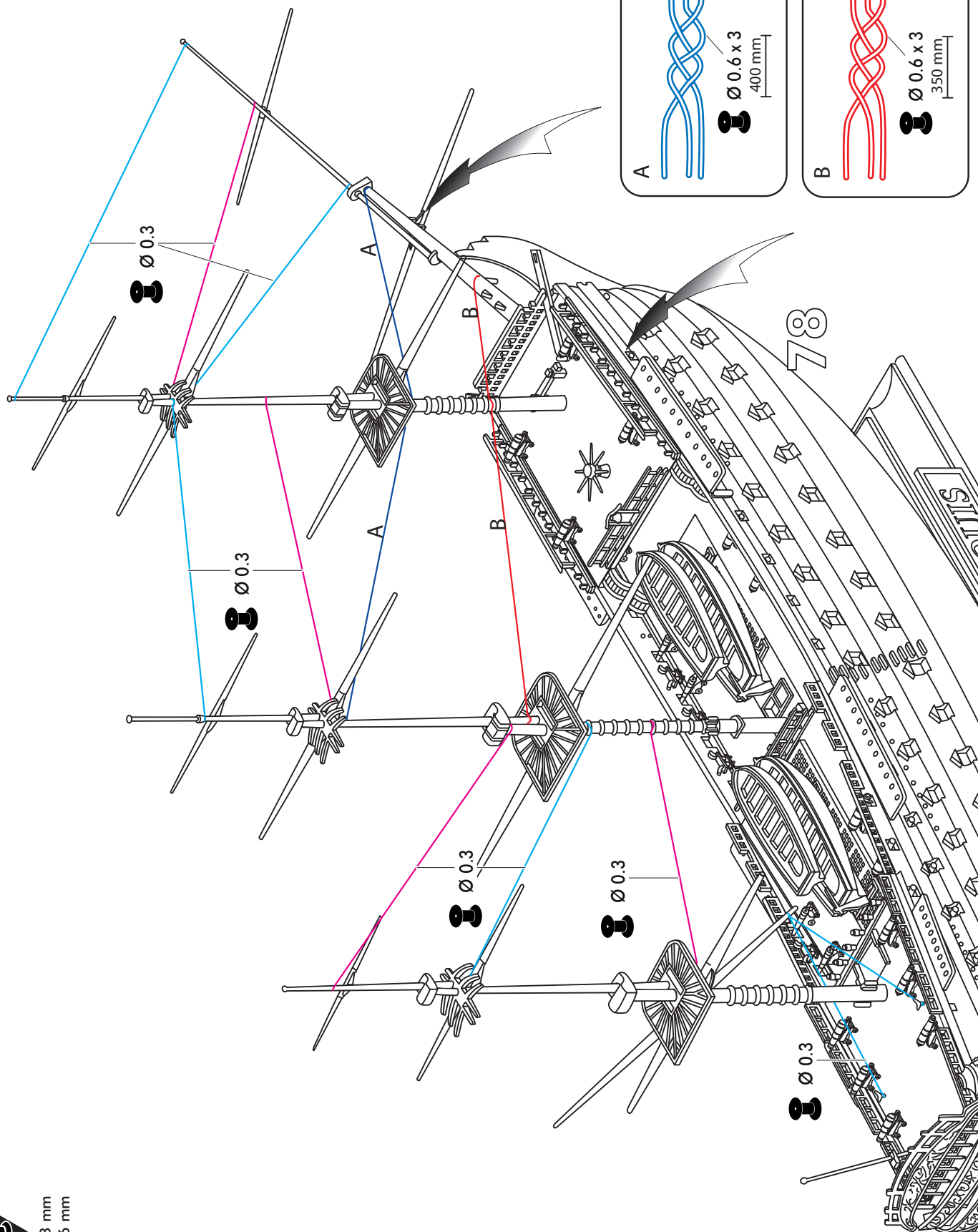
Ø 0,3 mm







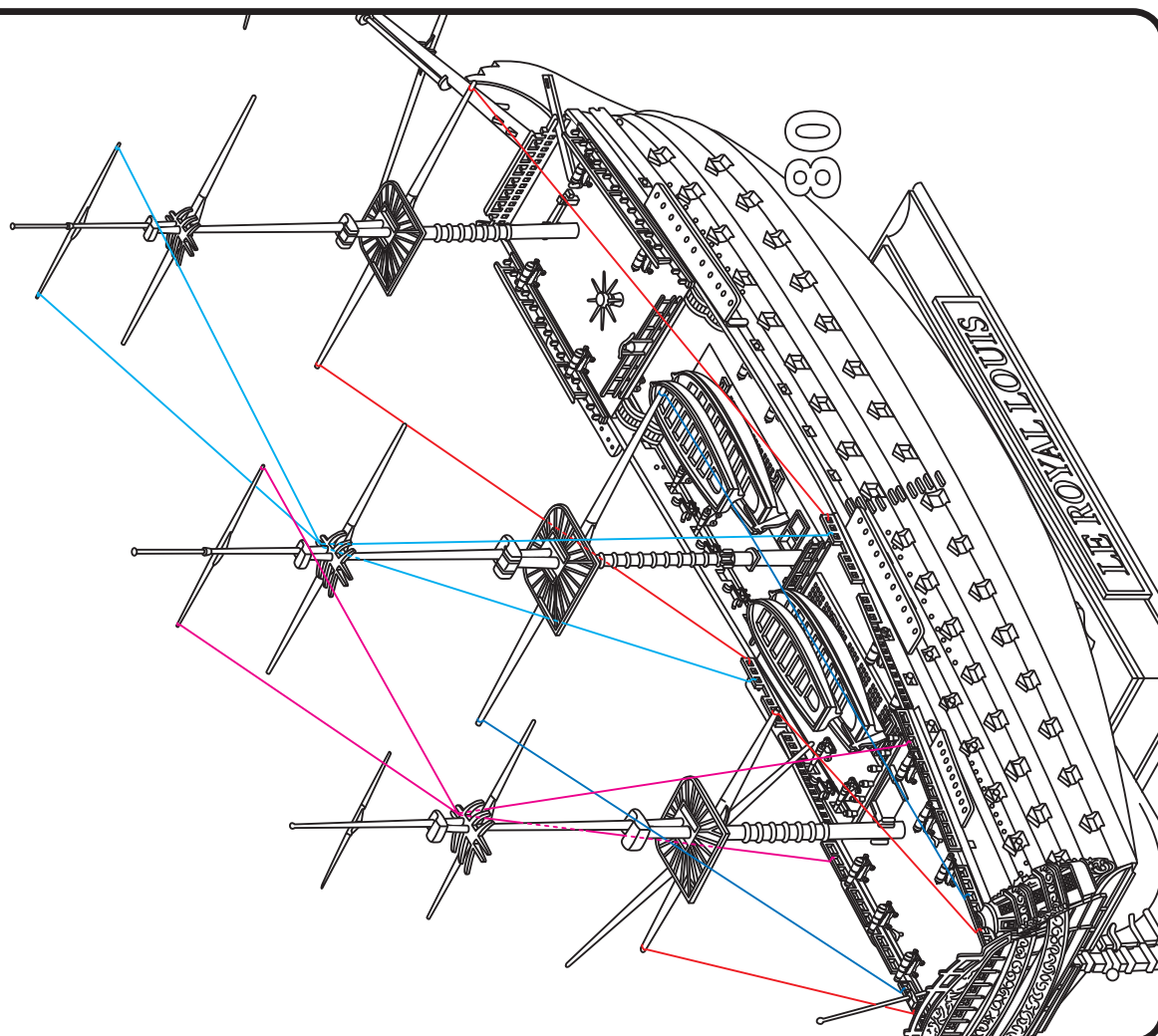
Ø 0,3 mm
Ø 0,6 mm



81



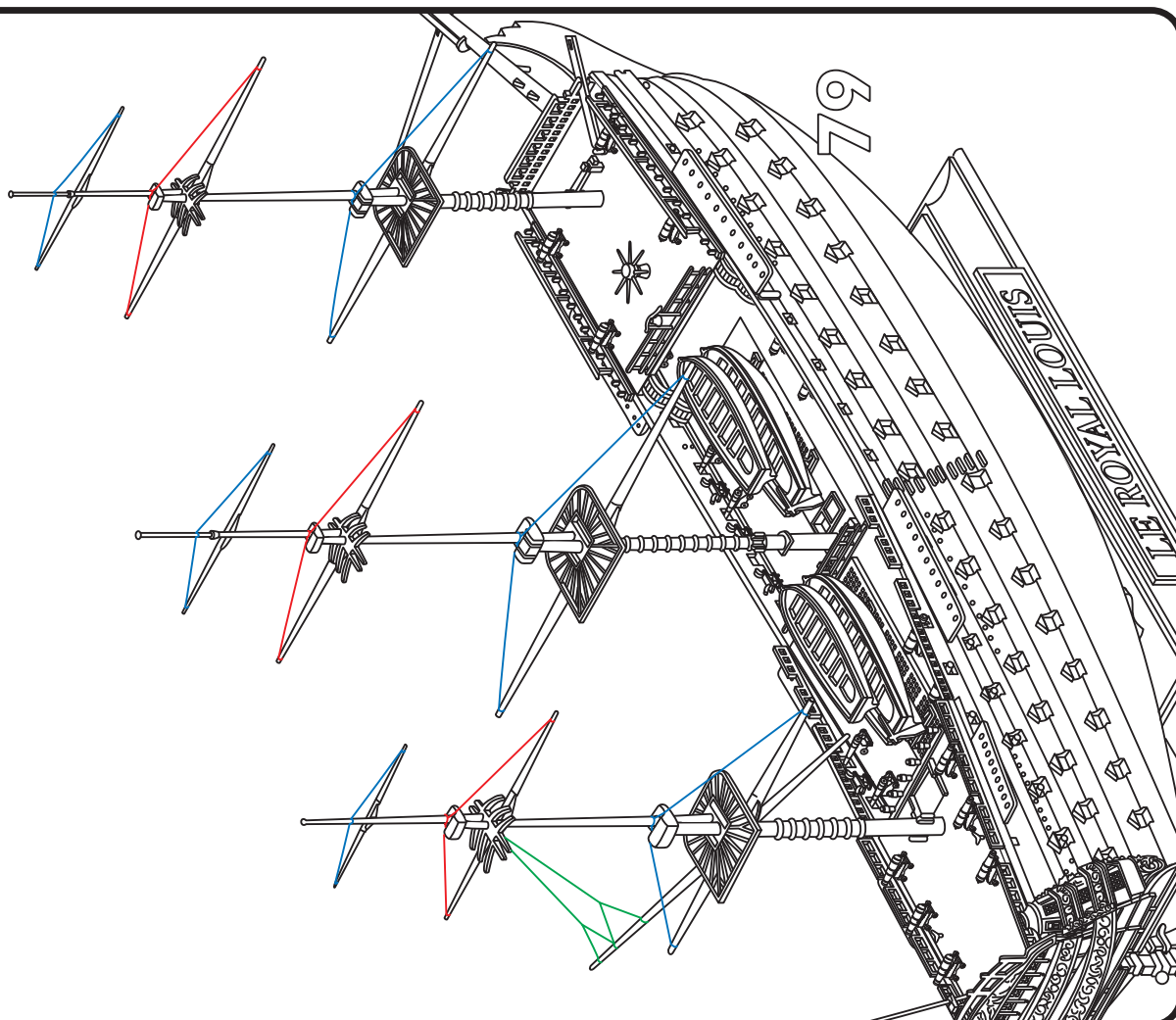
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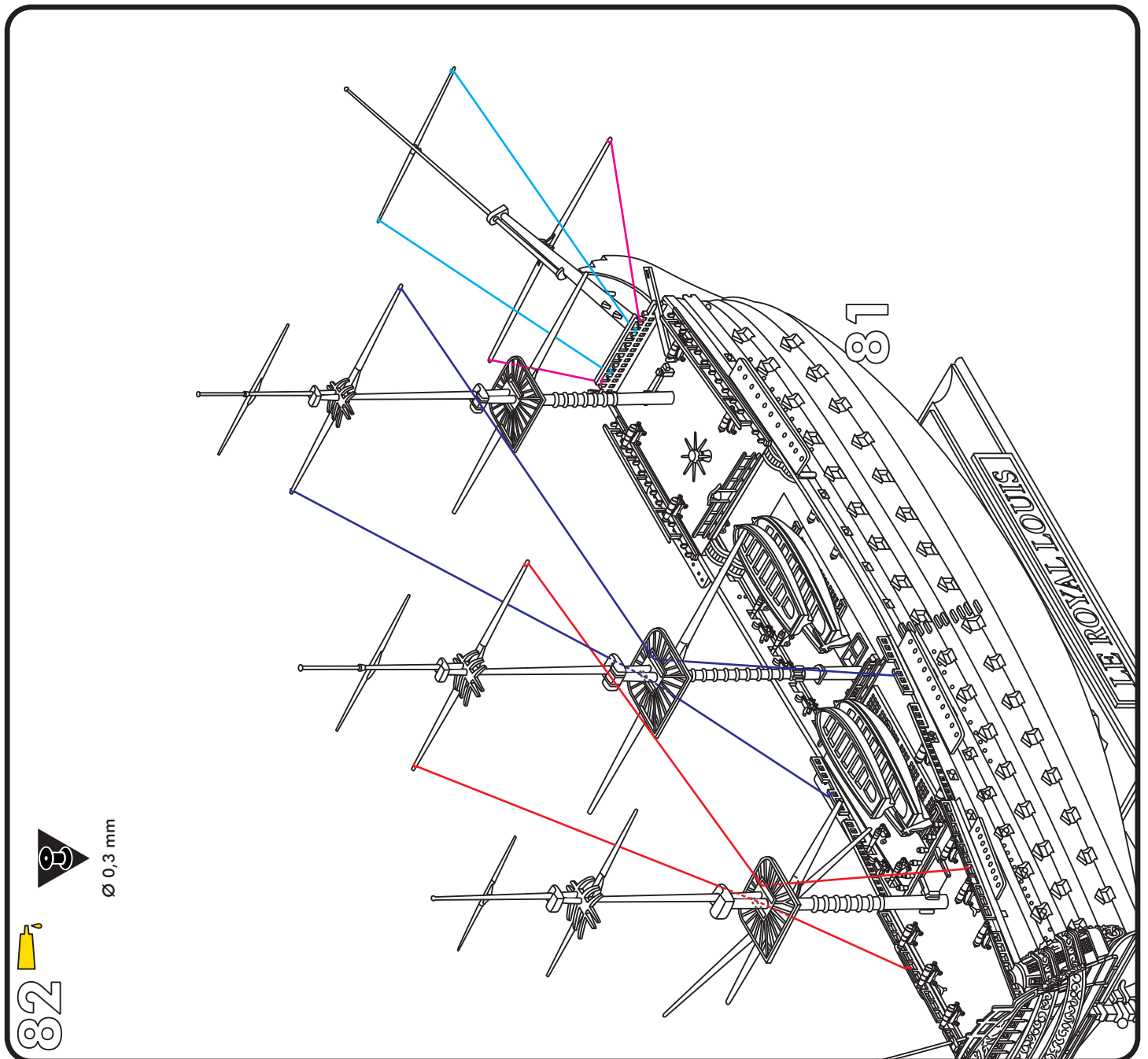
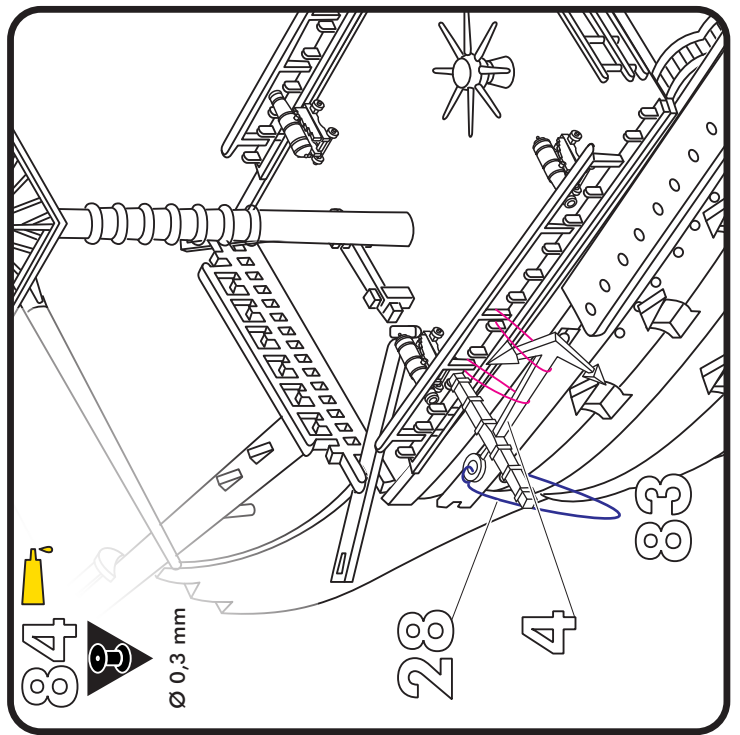
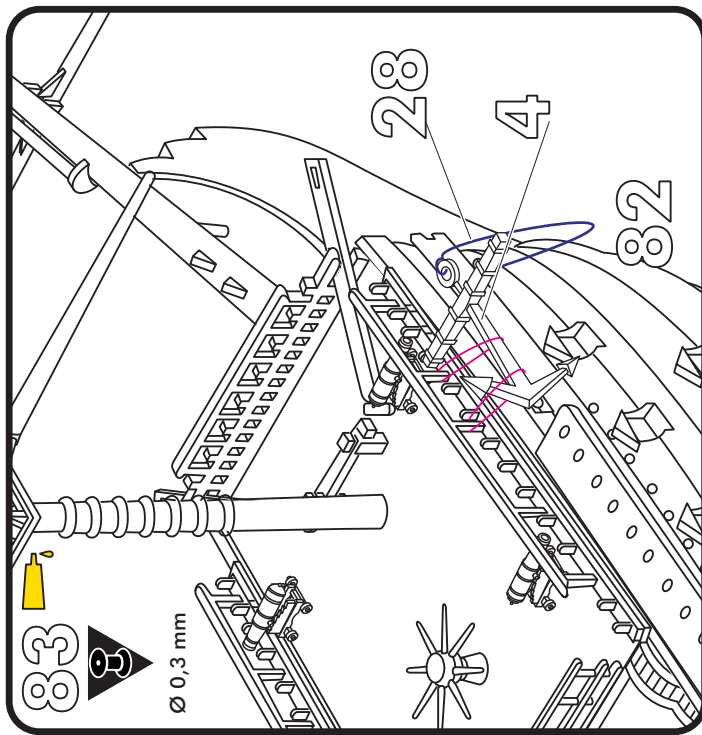


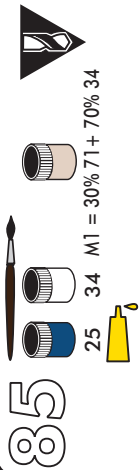
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Ø 0,3 mm

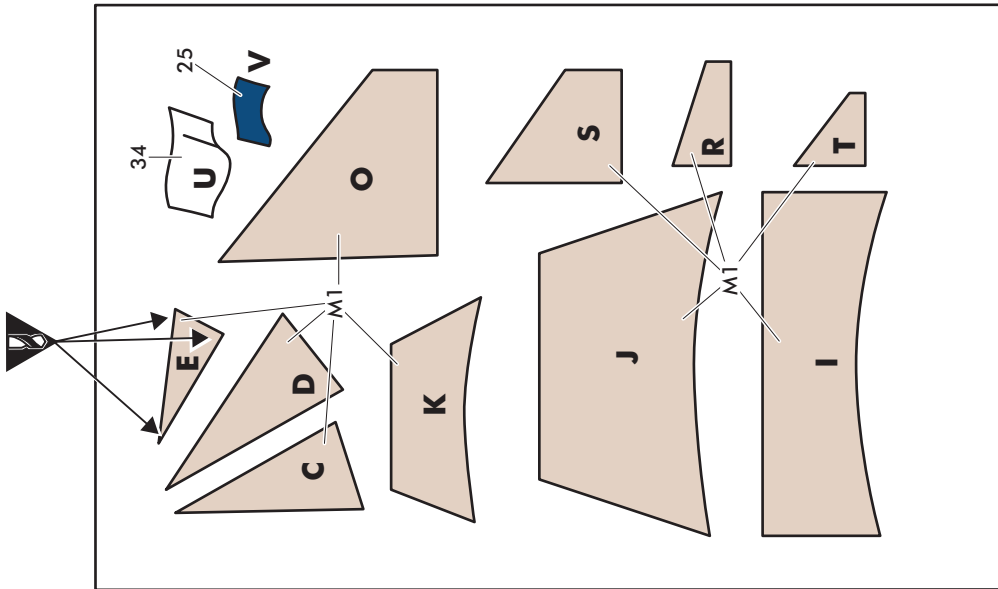






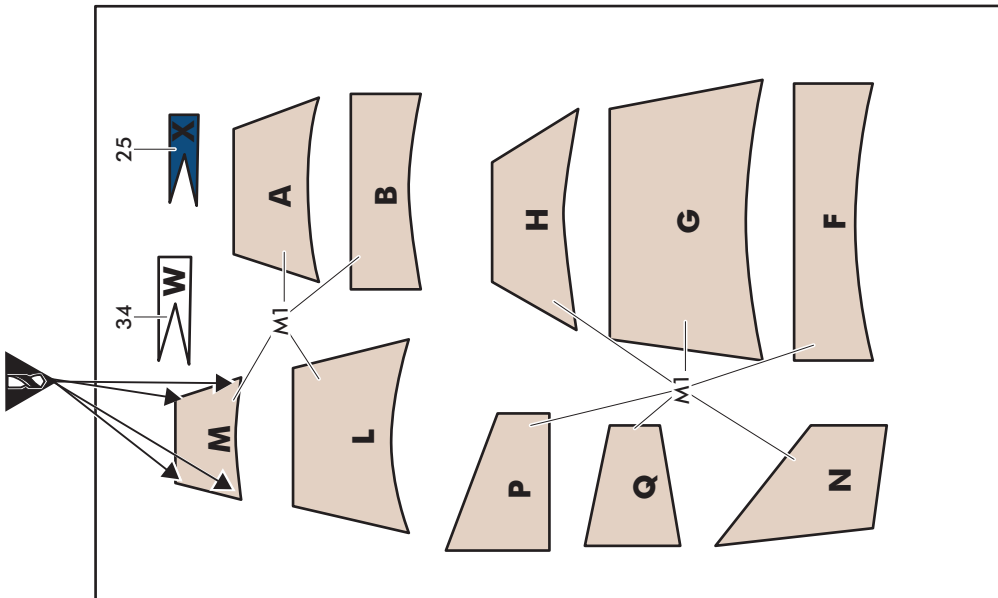
CDEIJKORSTUV

Ø 0.5 mm



ABFGHLMNQWX

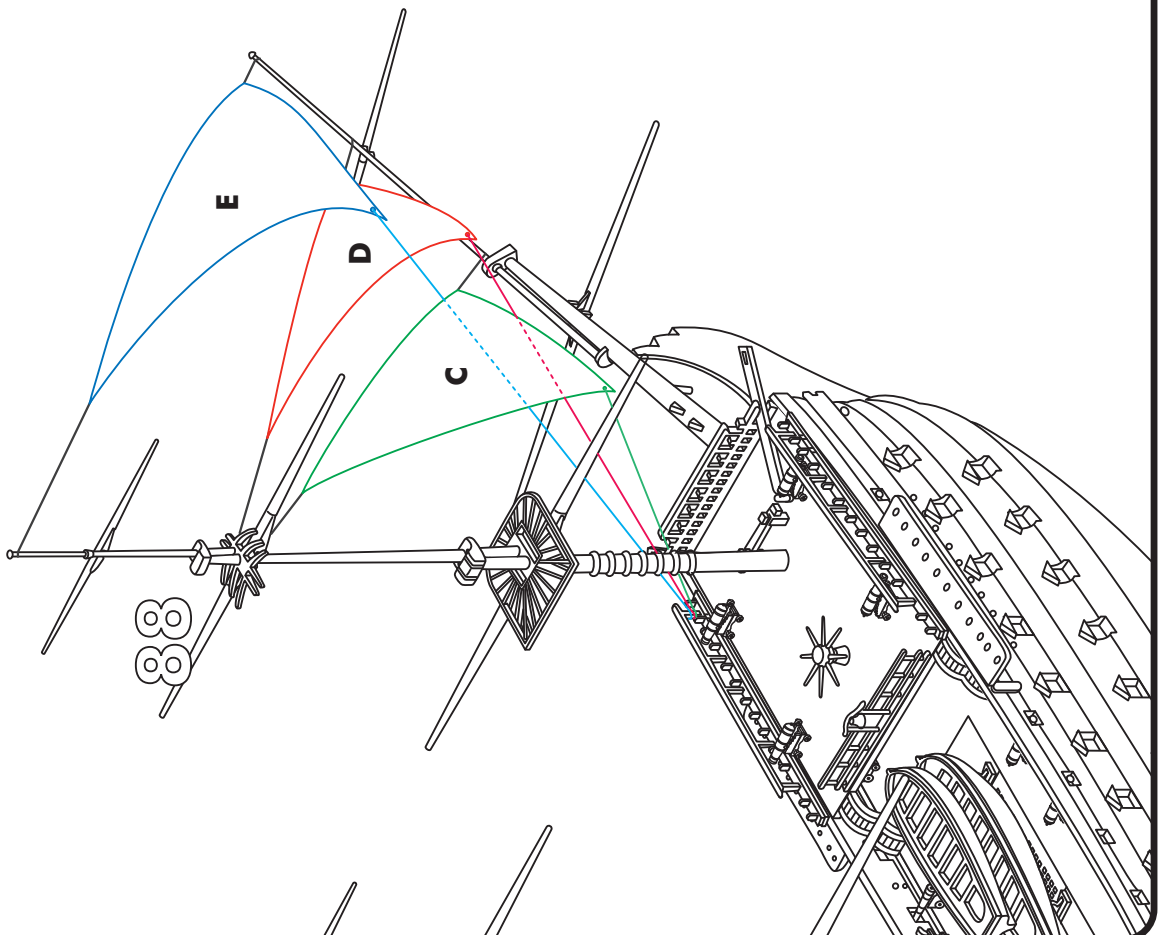
Ø 0.5 mm



89



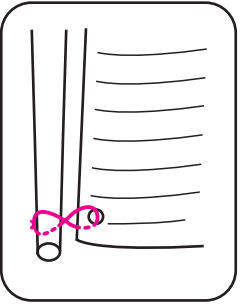
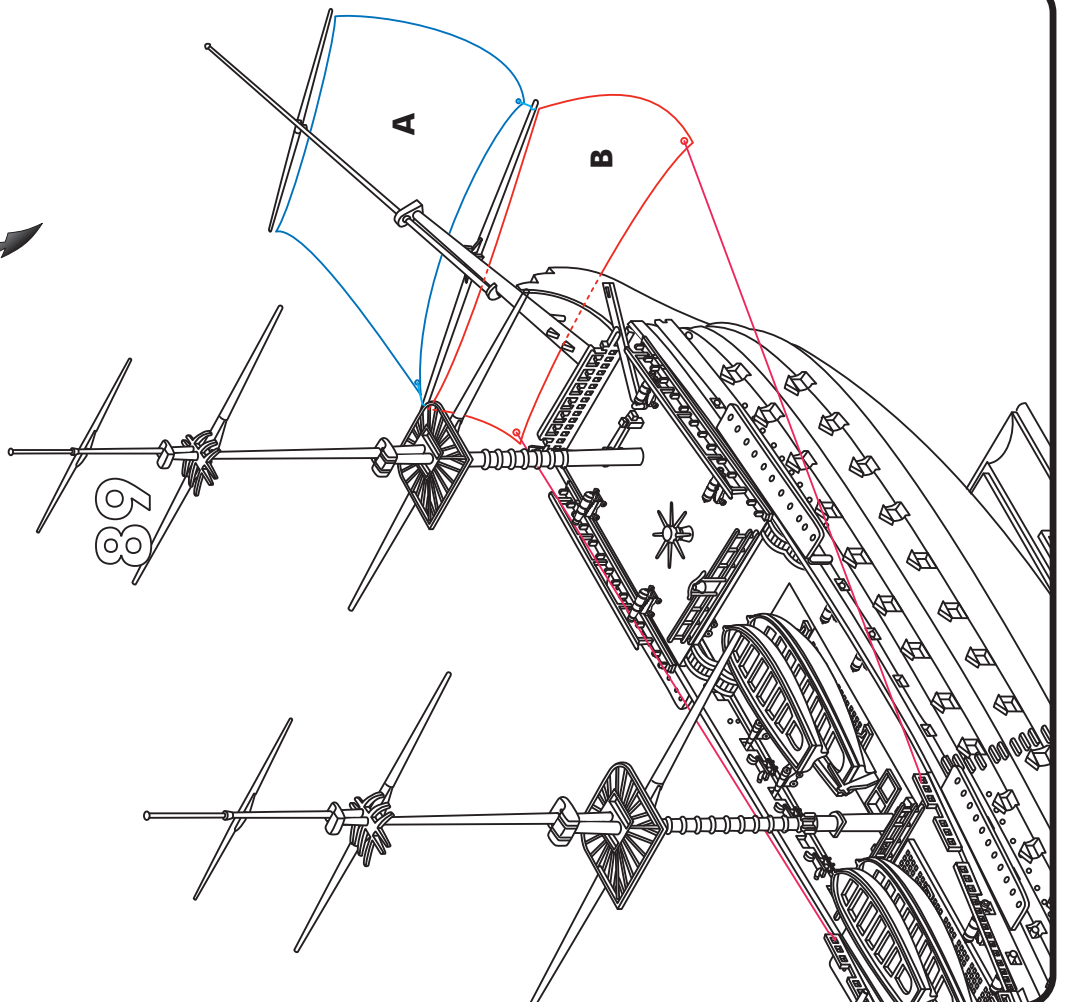
Ø 0,3 mm

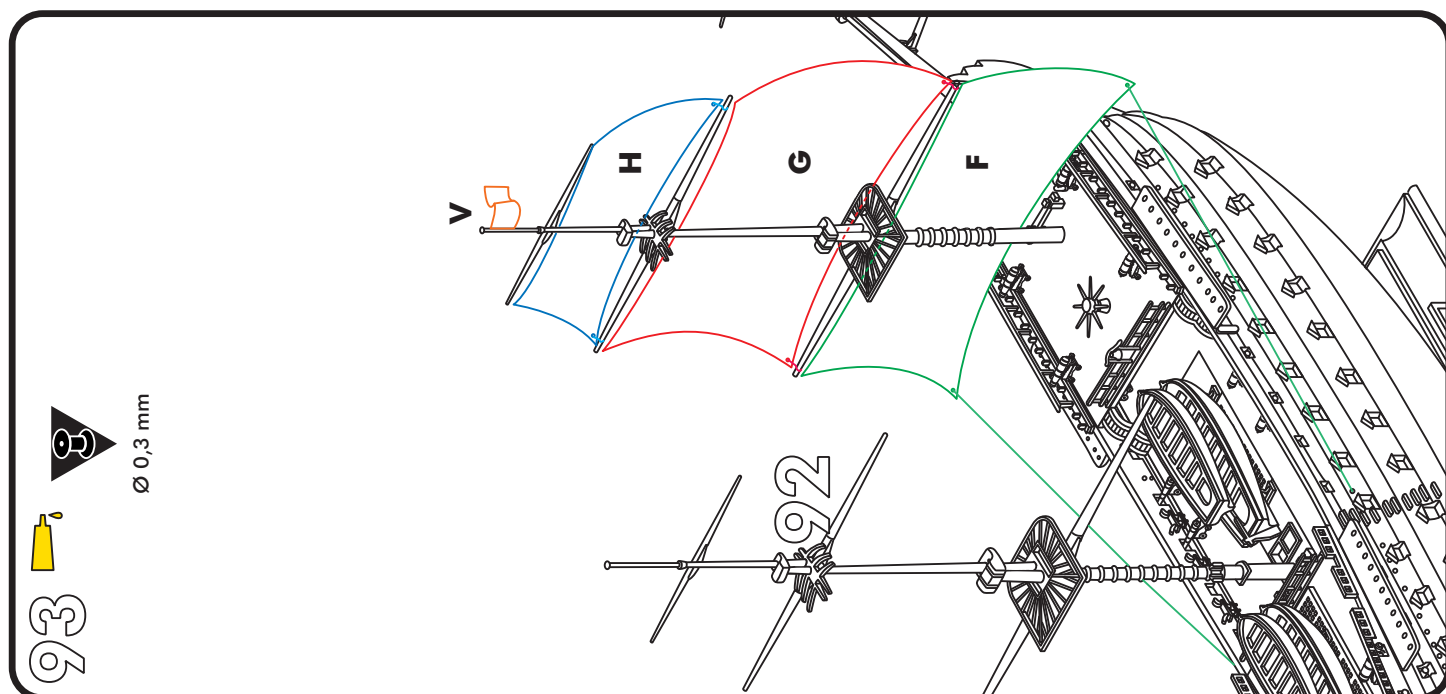
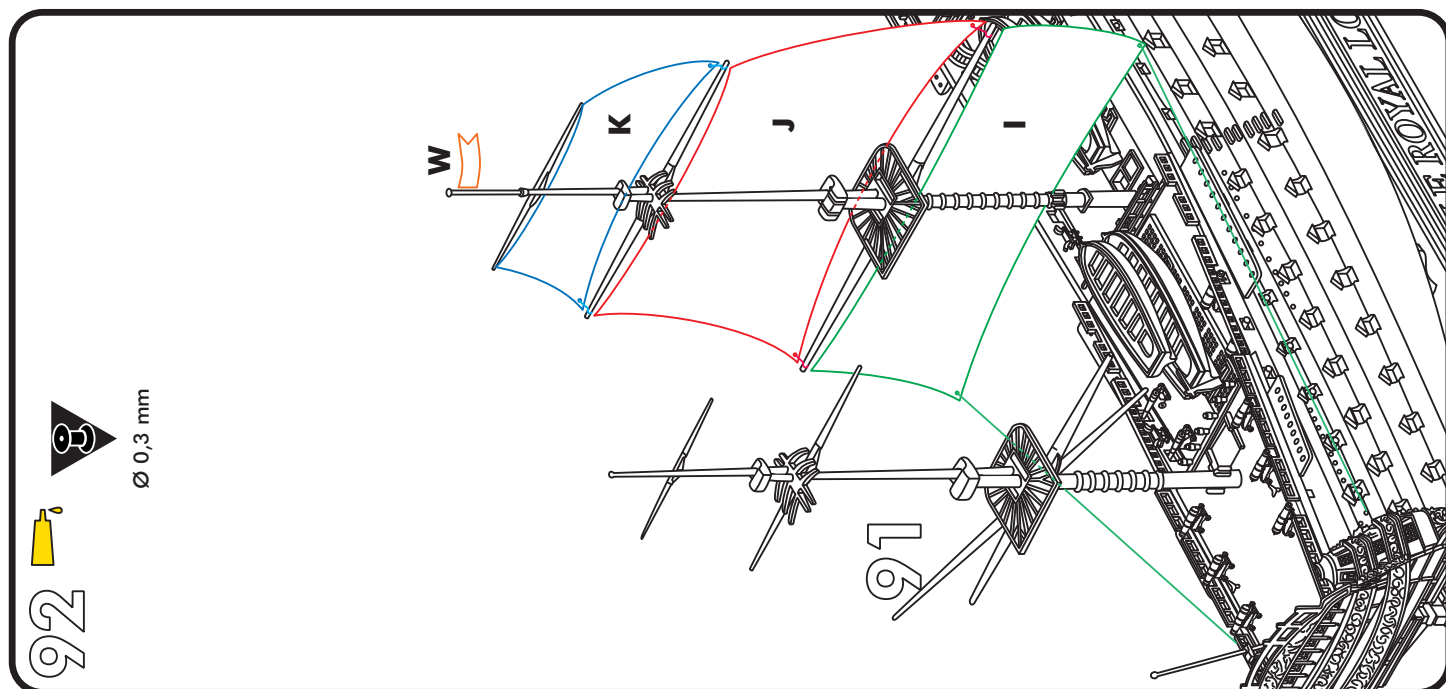
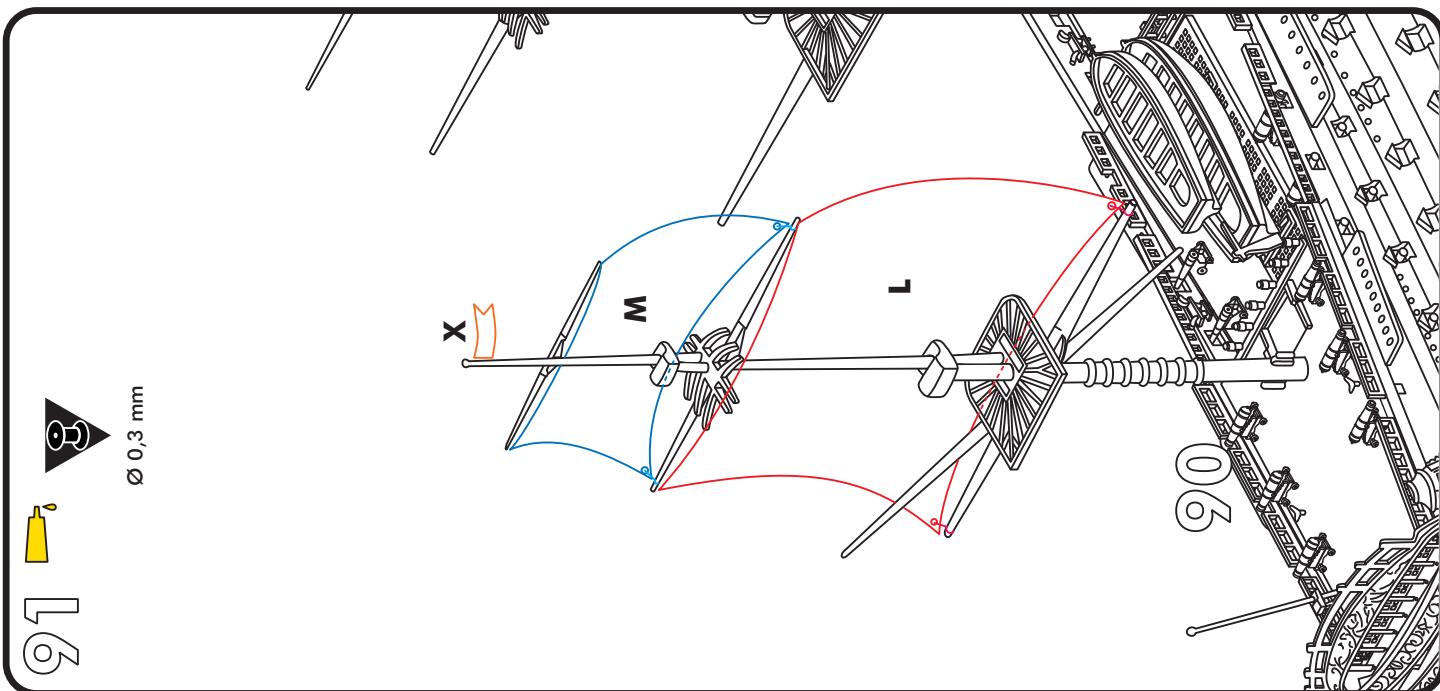


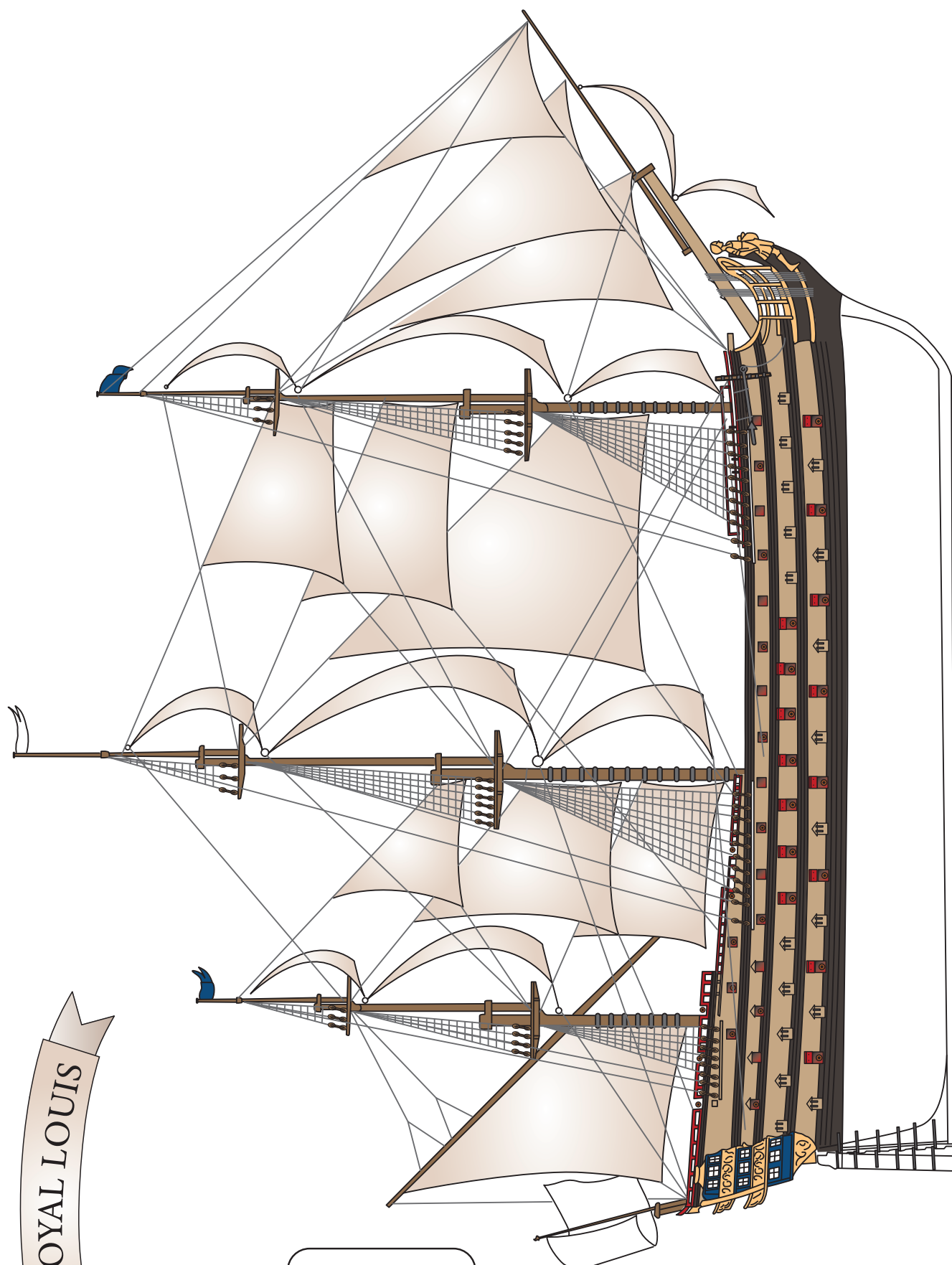
90



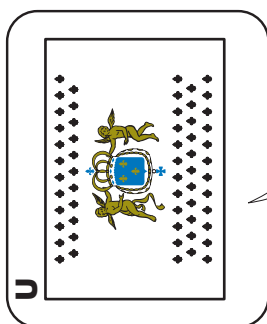
Ø 0,3 mm







LE ROYAL LOUIS

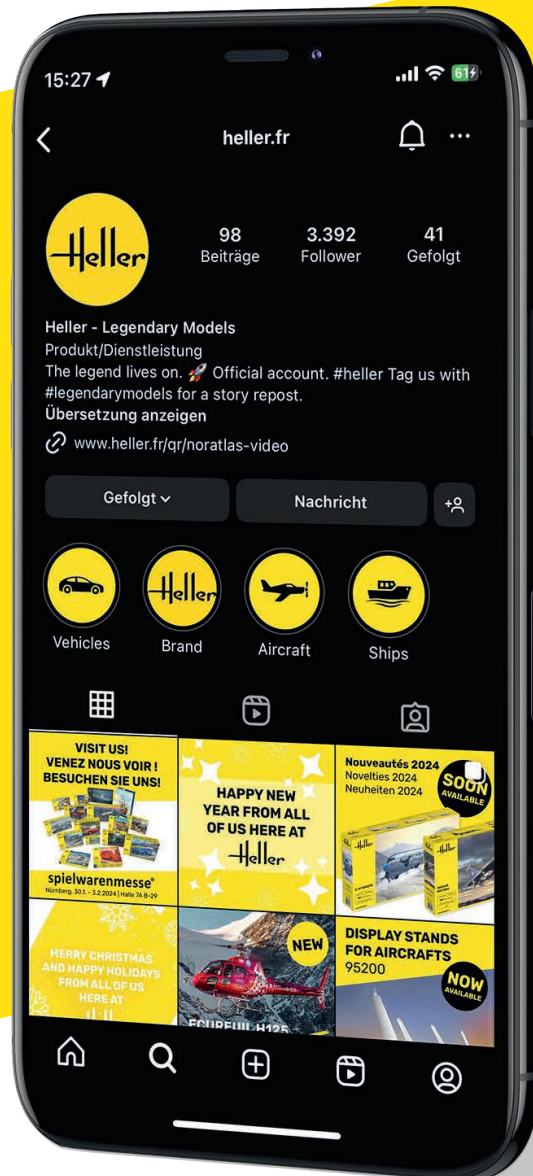


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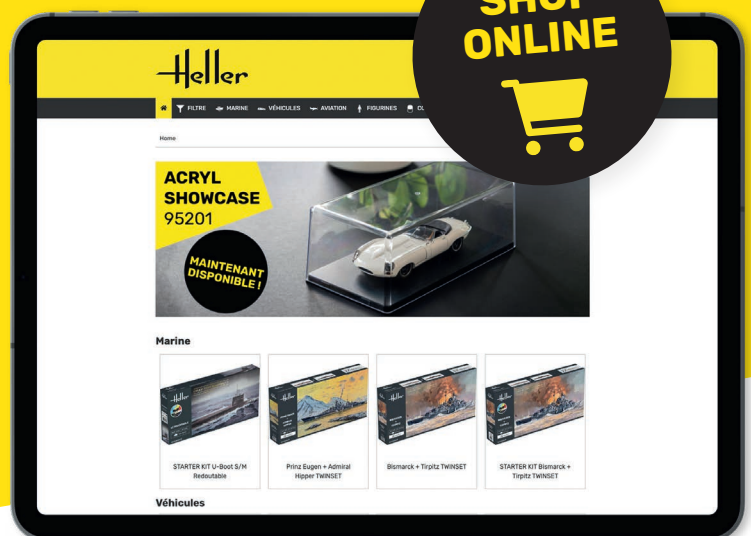
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