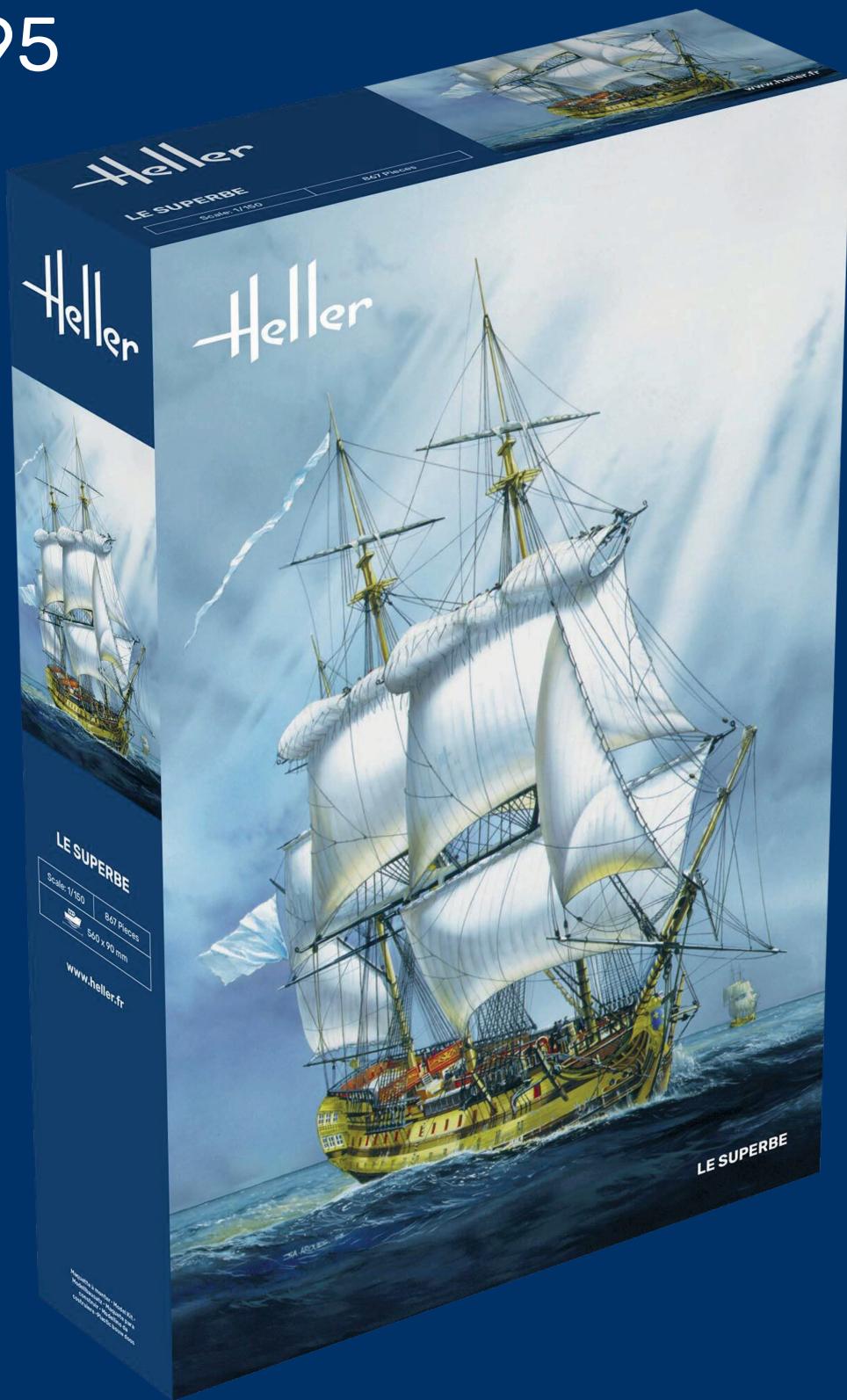


Heller

# LE SUPERBE

80895



## Français

Le Superbe appartenait à la classe Téméraire et issu d'un programme maritime tentant de renforcer la diversité des vaisseaux des forces navales de LOUIS XVI au XVIIIe siècle, le SUPERBE, longuement élaboré, fut mis en chantier en 1782 sur les plans de l'ingénieur Jacques-Noël Sané. Classé parmi les vaisseaux de 74 canons, il a la particularité d'avoir une coque doublée de cuivre. Cette pratique du doublage s'était généralisée à partir de 1770. Elle permettait à la coque, et notamment à la carène de ne pas être attaquée par les vers et autres parasites. Avantage supplémentaire, le vaisseau gagnait quelques noeuds de vitesse.

Le SUPERBE est équipé de 74 canons répartis ainsi: 28 de 36 livres sur la 1ère batterie, 30 de 18 livres sur la 2ème batterie et 16 de 8 livres sur le gaillard. Comme tous les vaisseaux de 74 canons, le SUPERBE ne possédait pas de mantelet à la seconde batterie. Il est à noter que la figure de proe de ce bateau représente un écusson qui fut un principe imposé comme réglementaire en 1785. Introduit dans l'Armée Navale de l'Amiral Villaret De Joyeuse, il essaya au mois de Janvier 1795 une violente tempête. Celle-ci endommagea de nombreux navires de cette armée, dont le SUPERBE.

<b>Année de fabrication</b>	1756	<b>Poids</b>	2000 t
<b>Longueur totale</b>	85 m	<b>Quantité produite</b>	1
<b>Largeur (ligne de flottaison)</b>	14,90 m	<b>Vitesse maximale</b>	5-14 kn
<b>Hauteur</b>	60 m		

## Deutsch

Die Superbe gehörte zu der Téméraire-Klasse und war als Ergebnis eines maritimen Programms, das die Vielfalt der Schiffe der Seestreitkräfte von LOUIS XVI bis zum 18. Jahrhundert zu stärken versuchte. Die Superbe wurde über einen langen Zeitraum entwickelt und nach den Plänen des Ingenieurs Jacques-Noël Sané 1782 gebaut. Unter den 74-Kanonen-Schiffen klassifiziert, hatte sie die Besonderheit, einen kupferbeschichteten Rumpf zu haben. Diese Praxis der Verdoppelung hatte sich ab 1770 weit verbreitet. Diese erlaubte es, dass der Rumpf und insbesondere die Hülle des Rumpfes nicht von Würmern und anderen Parasiten angegriffen werden konnte. Ein zusätzlicher Vorteil war, dass das Schiff einige Knoten an Geschwindigkeit gewann. Die Superbe war mit 74 Geschützen ausgerüstet, die wie folgt verteilt waren: 28 St. von 36 Pfund auf der 1. Batterie, 30 St. von 18 Pfund auf der 2. Batterie und 16 St. von 8 Pfund auf dem Vorschiff. Wie alle Schiffe mit 74 Kanonen hatte auch die Superbe kein Mantelet auf der zweiten Batterie. Es ist zu beachten, dass die Galionsfigur dieses Schiffes ein Wappen darstellt, das 1785 als Vorschrift eingeführt wurde. Die Superbe wurde in die Marinearmee von Admiral Villaret De Joyeuse eingeführt und sank im Januar 1795 während eines heftigen Sturms. Der Sturm beschädigte viele Schiffe dieser Armee, darunter auch die Superbe.

<b>Baujahr</b>	1756	<b>Gewicht</b>	2000 t
<b>Gesamtlänge</b>	85 m	<b>Gebaute Menge</b>	1
<b>Breite (Wasserlinie)</b>	14,90 m	<b>Max. Geschwindigkeit</b>	5-14 kn
<b>Höhe</b>	60 m		

## Italiano

La Superbe, che apparteneva alla classe Téméraire, era il risultato di un programma marittimo mirato ad ampliare la varietà delle navi utilizzate dalle forze navali di Luigi XVI fino al XVIII secolo. La Superbe fu sviluppata nel corso di un lungo periodo di tempo e costruita secondo i piani dell'ingegnere Jacques-Noël Sané nel 1782. Classificata tra le navi da 74 cannoni, presentava la particolarità di uno scafo rivestito in rame. Questa tecnica di raddoppio si era diffusa a partire dal 1770. In questo modo si evitava che lo scafo, e in particolare il suo involucro, potessero essere attaccati dai tarli e da altri parassiti. Un ulteriore vantaggio era rappresentato dall'incremento di qualche nodo di velocità.

La Superbe era armata con 74 cannoni, così distribuiti: 28 pezzi da 36 libbre nella 1a batteria, 30 pezzi da 18 libbre nella 2a batteria e 16 pezzi da 8 libbre sul castello di prua. Come tutte le navi con 74 cannoni, la Superbe non aveva un mantelletto sulla seconda batteria. Si noti che la polena di questa nave rappresenta uno stemma che fu introdotto come regolamento nel 1785. La Superbe entrò nell'esercito navale dall'ammiraglio Villaret De Joyeuse e affondò nel mese di gennaio del 1795 durante una violenta tempesta. La tempesta danneggiò molte navi di questa flotta, compresa la Superbe.

<b>Anno di costruzione</b>	1756	<b>Il peso</b>	2000 t
<b>Lunghezza complessiva</b>	85 m	<b>Importo costruito</b>	1
<b>Ampio (linea del agua)</b>	14,90 m	<b>Velocità massima</b>	5-14 kn
<b>Altezza</b>	60 m		

## English

The Superbe belonged to the Téméraire class and was the result of a maritime programme that sought to strengthen the diversity of the ships of the naval forces from LOUIS XVI to the 18th century. The Superbe was developed over a long period of time and built according to the plans of the engineer Jacques-Noël Sané in 1782.

Classified among the 74-gun ships, it was the peculiarity of having a copper-plated hull. This practice of doubling had become widespread from 1770. It allowed the hull and in particular the hull shell, not to be attacked by worms and other parasites. An additional advantage was that the ship gained a few knots in speed. The Superbe was equipped with 74 guns, distributed as follows: 28 pcs of 36 pounds on the 1st battery, 30 pcs of 18 pounds on the 2nd battery and 16 pcs of 8 pounds on the fore ship. Like all ships with 74 guns, the Superbe had no mantelet on the second battery. It should be noted that the figurehead of this ship is a coat of arms that was introduced as a regulation in 1785. The Superbe was introduced into the naval army of Admiral Villaret De Joyeuse and sank in January 1795 during a violent storm. The storm damaged many ships of this army, including the Superbe.

<b>Construction year</b>	1756	<b>Weight</b>	2000 t
<b>Total length</b>	85 m	<b>Built quantity</b>	1
<b>Width (Beam)</b>	14,90 m	<b>Max. speed</b>	5-14 kn
<b>Height</b>	60 m		

## Español

El Superbe pertenecía a la clase Téméraire y fue el resultado de un programa marítimo que pretendía reforzar la diversidad de los buques de las fuerzas navales desde LOUIS XVI hasta el siglo XVIII. El Superbe se desarrolló durante un largo período de tiempo y se construyó según los planos del ingeniero Jacques-Noël Sané en 1782.

Clasificado entre los barcos de 74 cañones, tenía la peculiaridad de tener un casco de cobre revestido de cobre. Esta práctica de duplicación se generalizó a partir de 1770. Permitió que el casco, y en particular la cubierta del casco, no sufriera el ataque de gusanos y otros parásitos. Una ventaja adicional fue que la nave ganó unos pocos nudos de velocidad. El Superbe estaba armado con 74 cañones, distribuidos de la siguiente manera: 28 piezas de 36 libras en la primera batería, 30 piezas de 18 libras en la segunda batería y 16 piezas de 8 libras en proa. Como todos los barcos con 74 cañones, el Superbe no tenía protección en la segunda batería. Cabe señalar que el mascarón de proa de este barco es un escudo de armas que se instauró como reglamento en 1785. El Superbe fue presentado al ejército naval por el almirante Villaret De Joyeuse y se hundió en enero de 1795 durante una violenta tormenta. La tormenta dañó muchos barcos de este ejército, incluido el Superbe.

<b>Año de construcción</b>	1756	<b>Peso</b>	2000 t
<b>Longitud total</b>	85 m	<b>Cantidad construida</b>	1
<b>Amplio (línea del agua)</b>	14,90 m	<b>Velocidad máxima</b>	5-14 kn
<b>Altura</b>	60 m		

## Nederland

De Superbe behoorde tot de Téméraire-klasse en was het resultaat van een maritiem programma dat de verscheidenheid aan schepen uitbreidde die door de zeemacht werden gebruikt, van LOUIS XVI tot de 18e eeuw. De Superbe is gedurende een lange periode ontwikkeld en werd in 1782 gebouwd volgens de plannen van de ingenieur Jacques-Noël Sané. Ze was geclassificeerd onder de 74-kanonschepen en bezat de bijzondere eigenschap van een met koper beklede romp. De praktijk van verdubbeling was in 1770 wijdverbreid. Hierdoor kon men de nefaste actie vermijden van wormen en andere parasieten op de scheepsromp en meer bepaald de buitenkant ervan. Het was een bijkomend voordeel dat het schip een paar knopen sneller werd. De Superbe was bewapend met 74 kanonnen, als volgt verdeeld: 28 stuks van 36 pond op de 1ste batterij, 30 stuks van 18 pond op de 2de batterij en 16 stuks van 8 pond op het voorschip. Zoals alle schepen met 74 kanonnen bezat de Superbe geen mantelet op de tweede batterij. Het is opmerkenswaardig dat het boegbeeld van dit schip een wapen is dat in 1785 als voorschrift werd ingevoerd. De Superbe werd door admiraal Villaret De Joyeuse aan het marineleger geïntroduceerd en zonk in januari 1795 tijdens een hevige storm. De storm beschadigde veel schepen van dit leger, waaronder de Superbe.

<b>Bouwjaar</b>	1756	<b>Gewicht</b>	2000 t
<b>Totale lengte</b>	85 m	<b>Gebouwde hoeveelheid</b>	1
<b>Breed (waterlijn)</b>	14,90 m	<b>Maximum snelheid</b>	5-14 kn
<b>Hoogte</b>	60 m		

2

Numéro de phase  
Step number  
Schrittnummer  
Número de fase

56

Référence de couleur  
Colour reference no  
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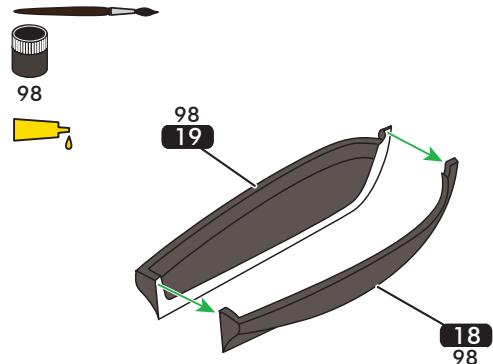
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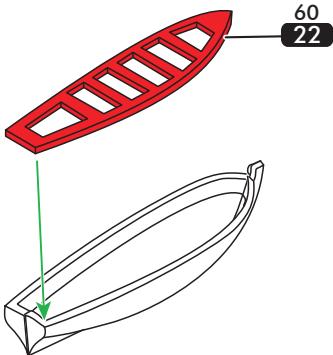
Disponibles séparément chez votre revendeur de maquettes. / Available separately at your local hobby shop.

								
12 Cuivre jaune métallique Copper Metallic Kupfer metallisch	16 Or métallique Gold Metallic Gold metallisch	25 Bleu mat Blue Matt Blau matt	33 Noir mat Black Matt Schwarz matt	34 Blanc mat White Matt Weiß matt	60 Ecarlate mat Scarlet Matt Scharlachrot matt	63 Sable mat Sand Matt Sand matt	98 Chocolat mat Chocolate Matt Schokolade matt	M1 95% 34 5% 63

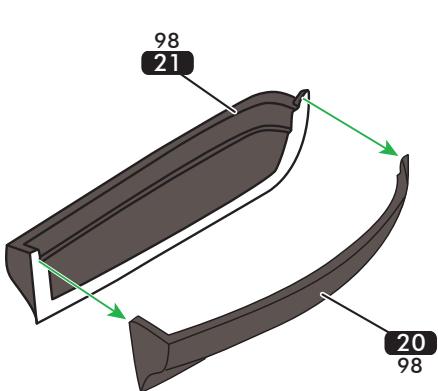
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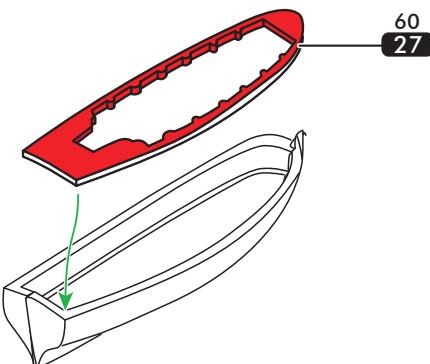
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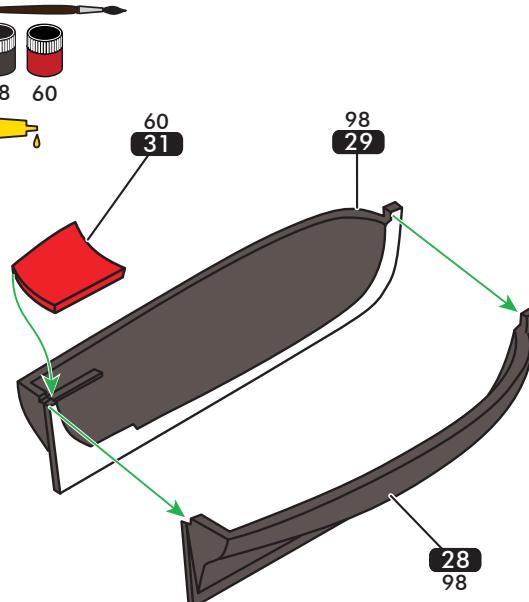
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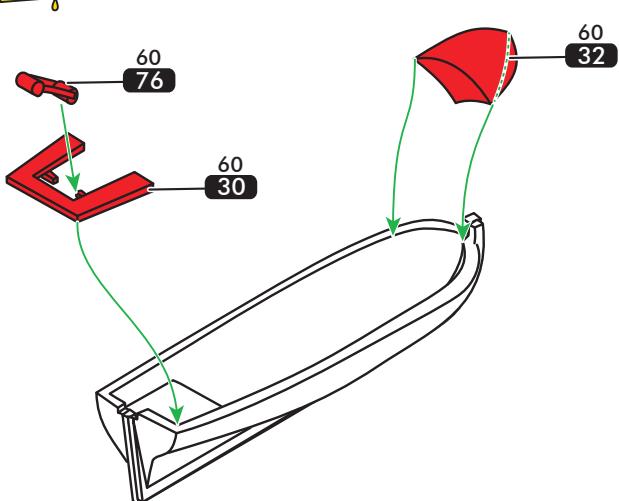
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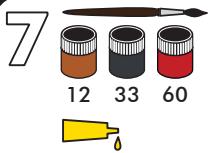


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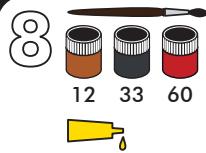
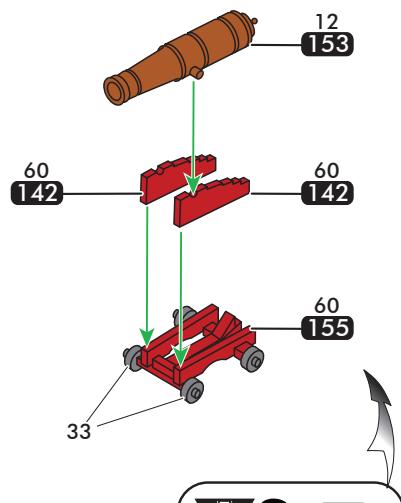


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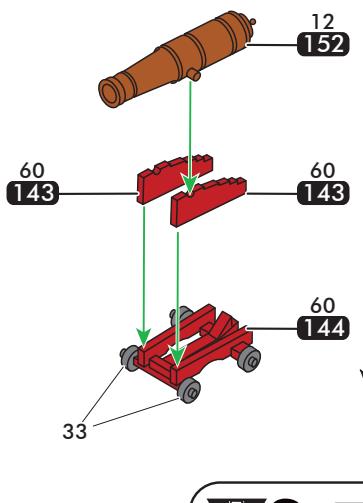




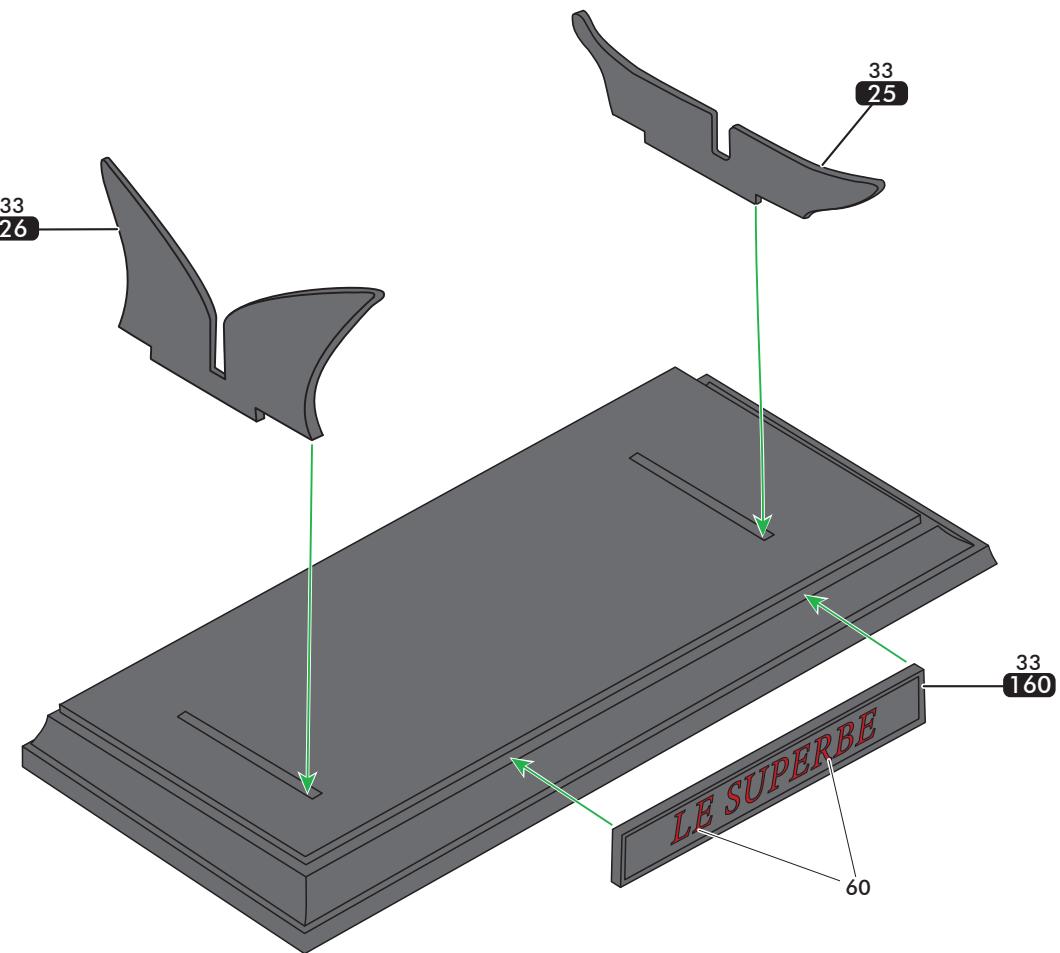
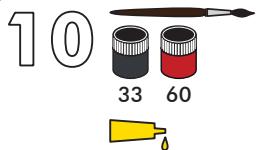
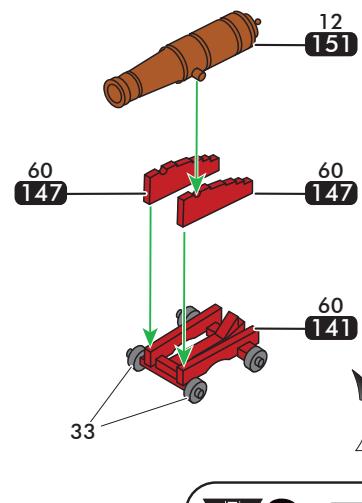
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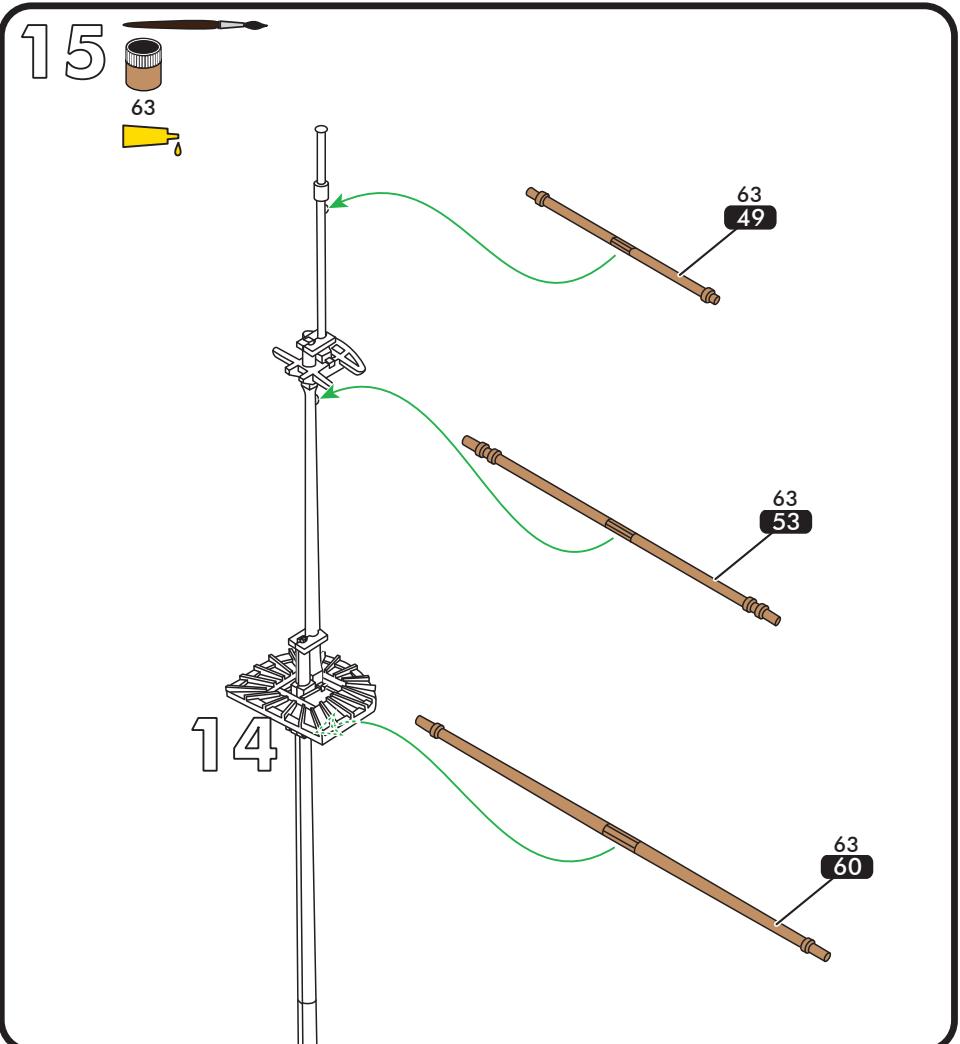
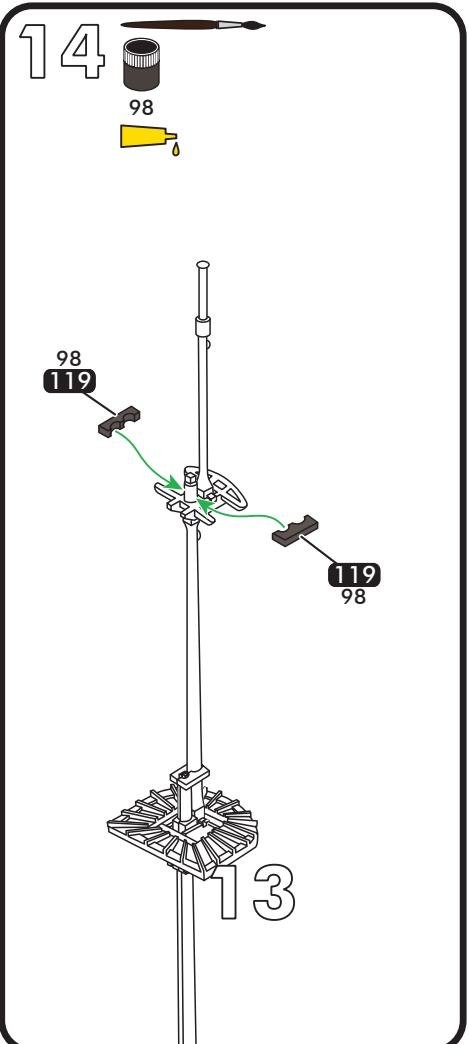
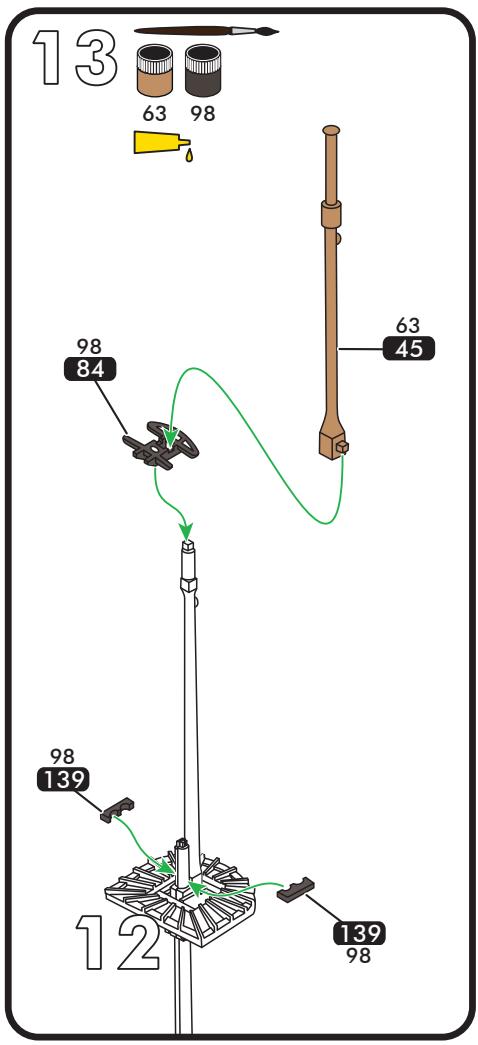
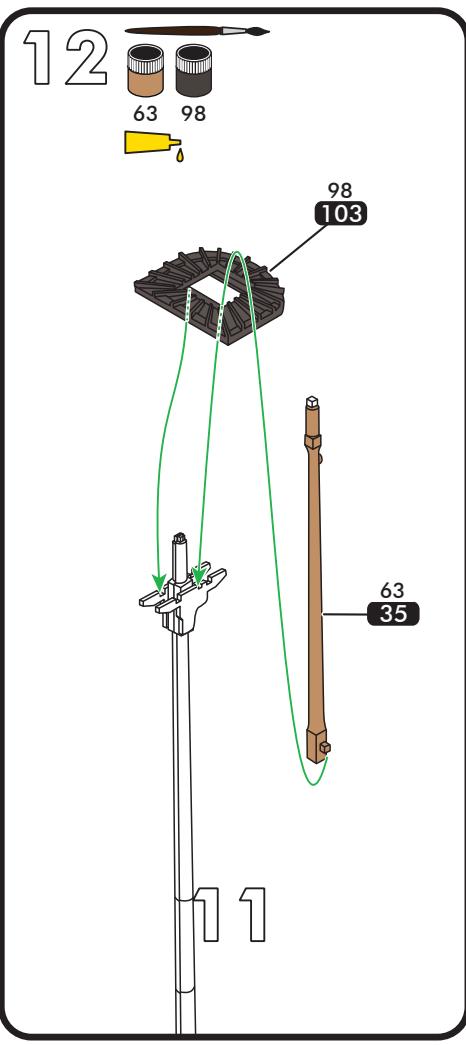
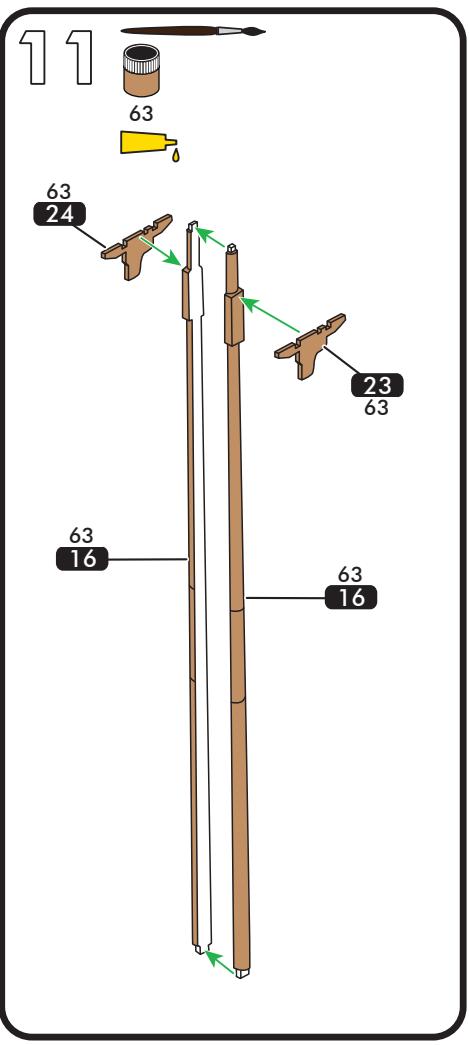


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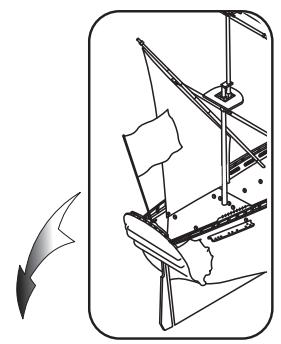
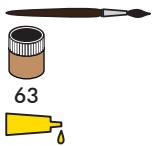


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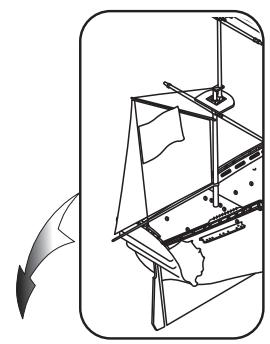
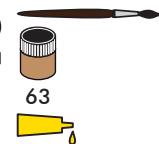




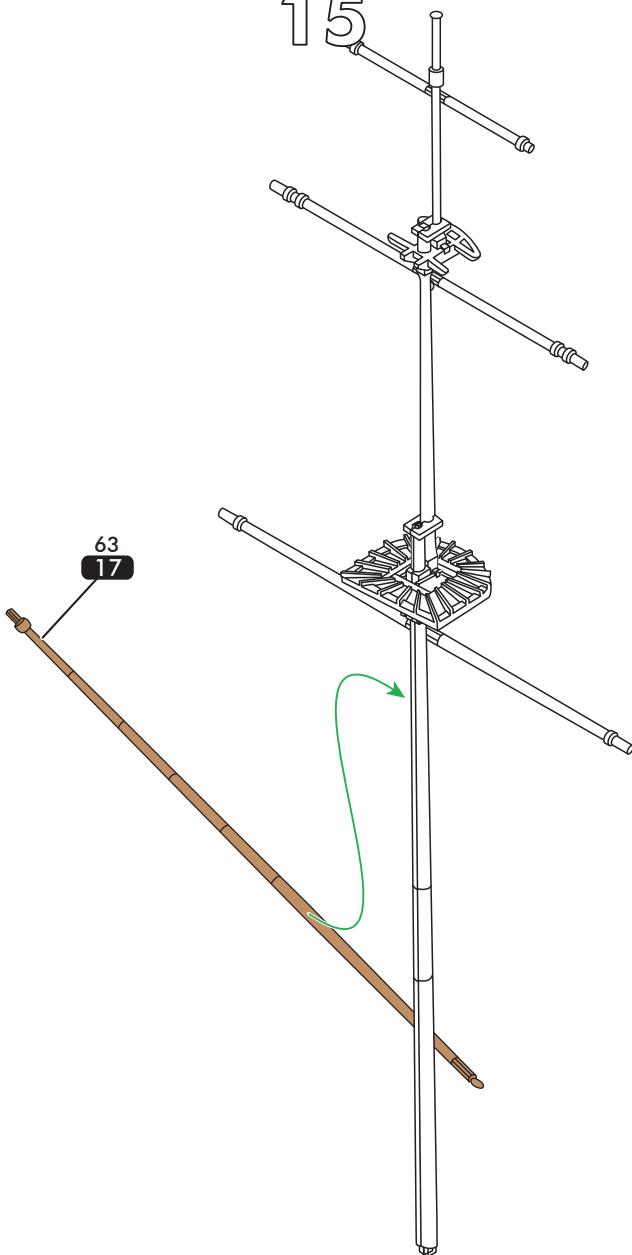
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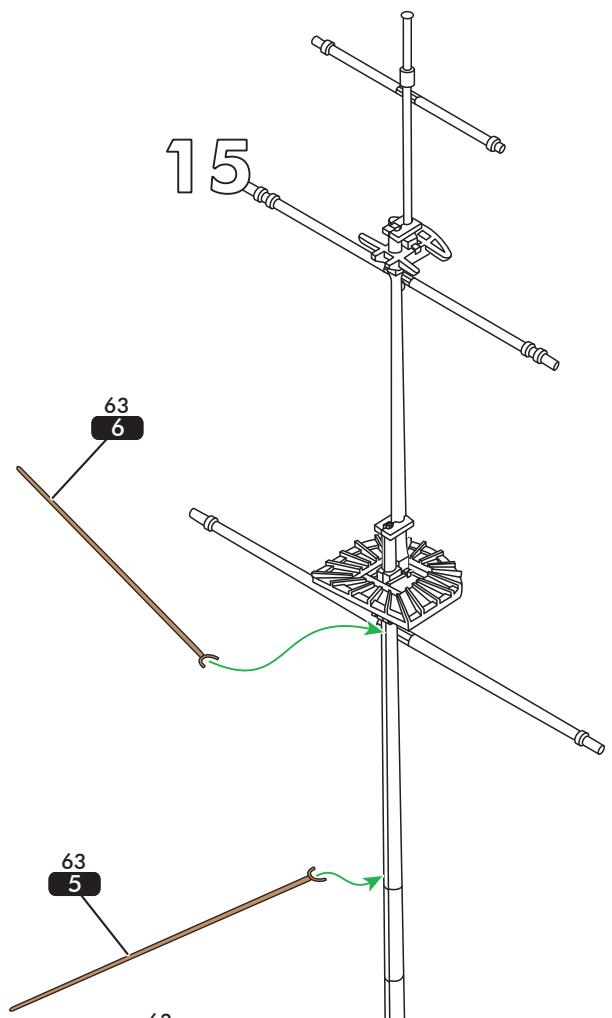
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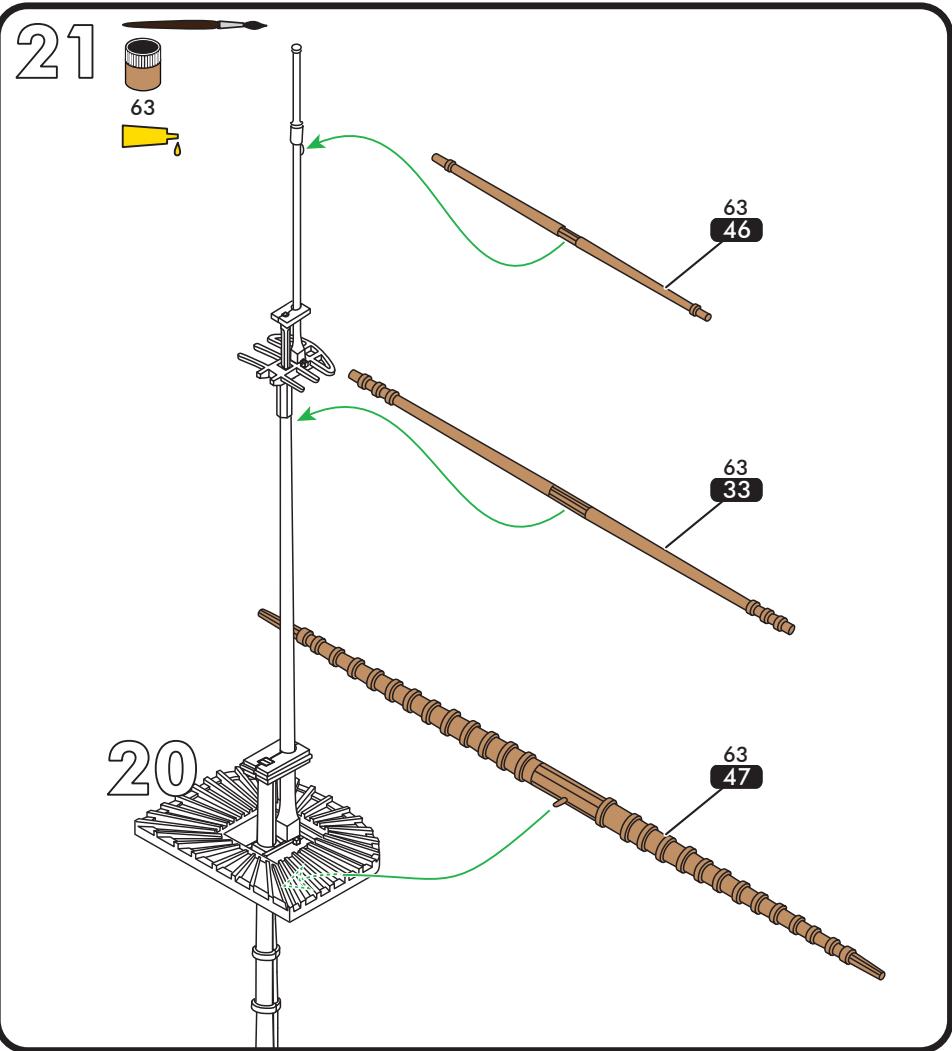
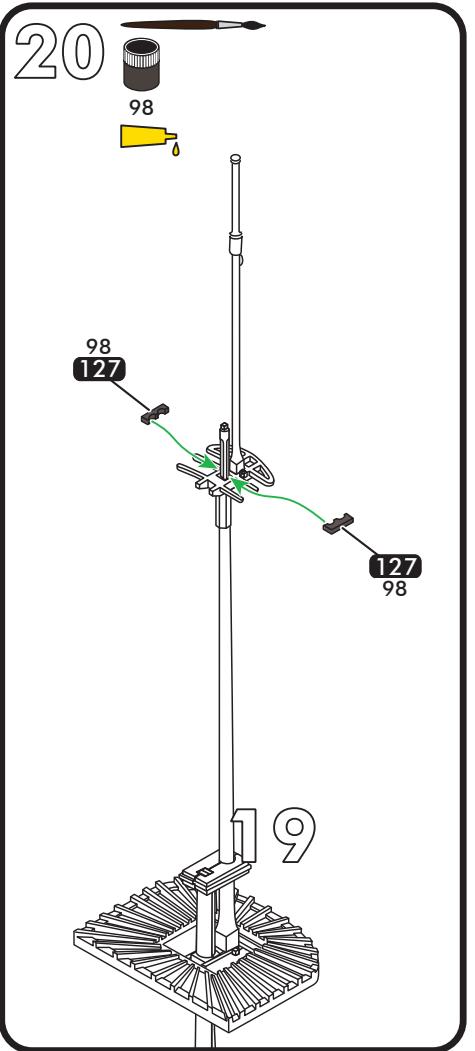
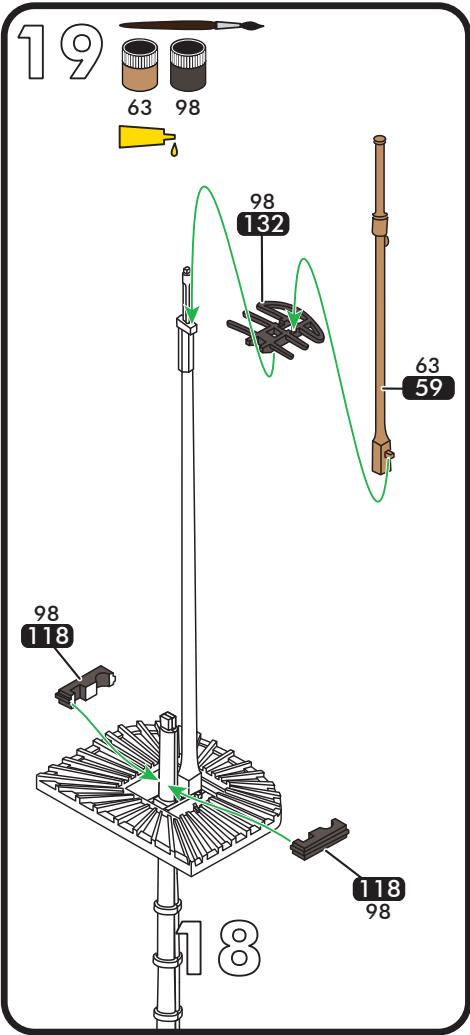
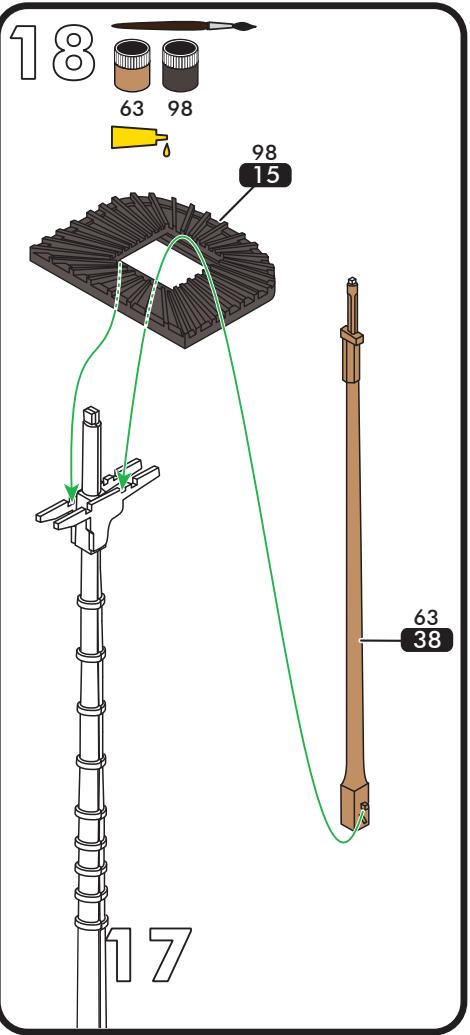
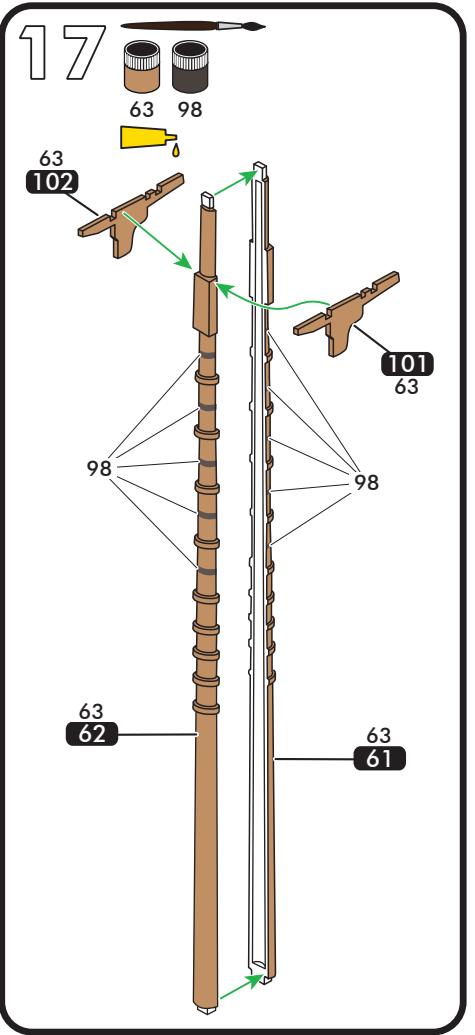


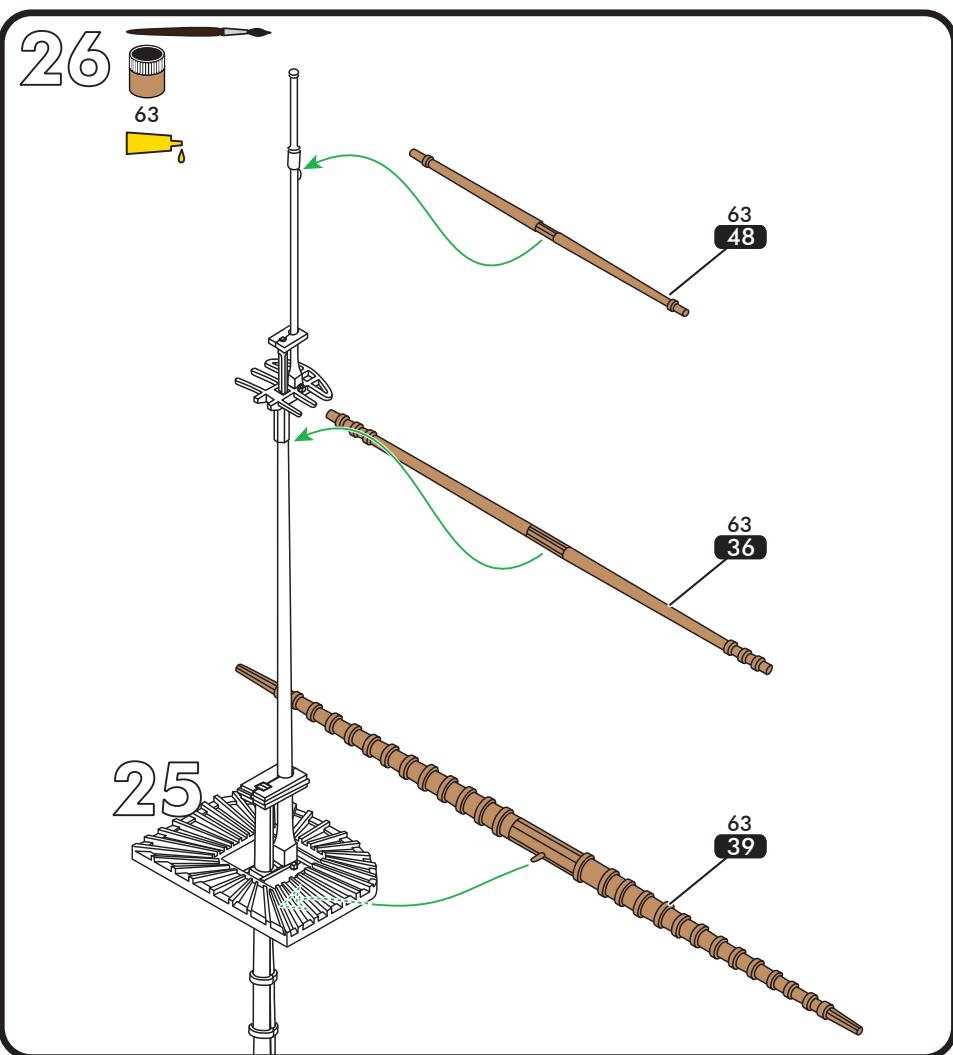
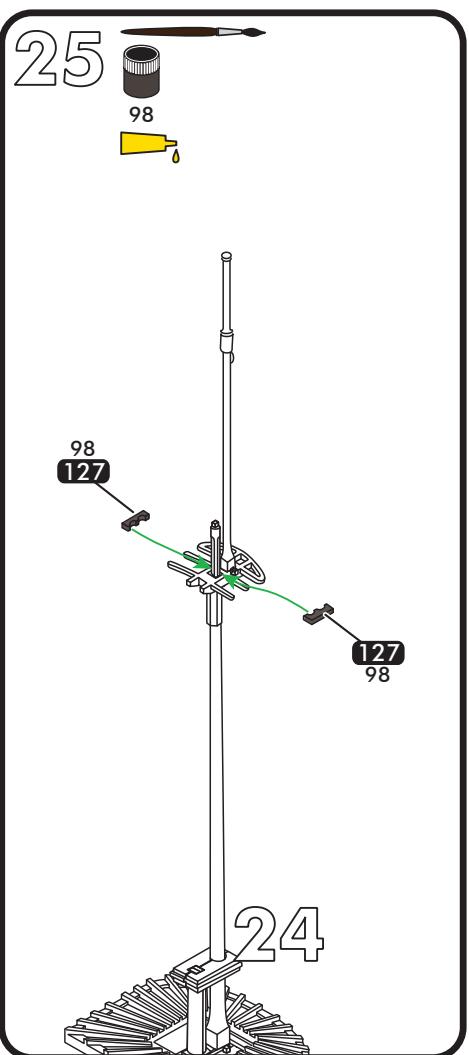
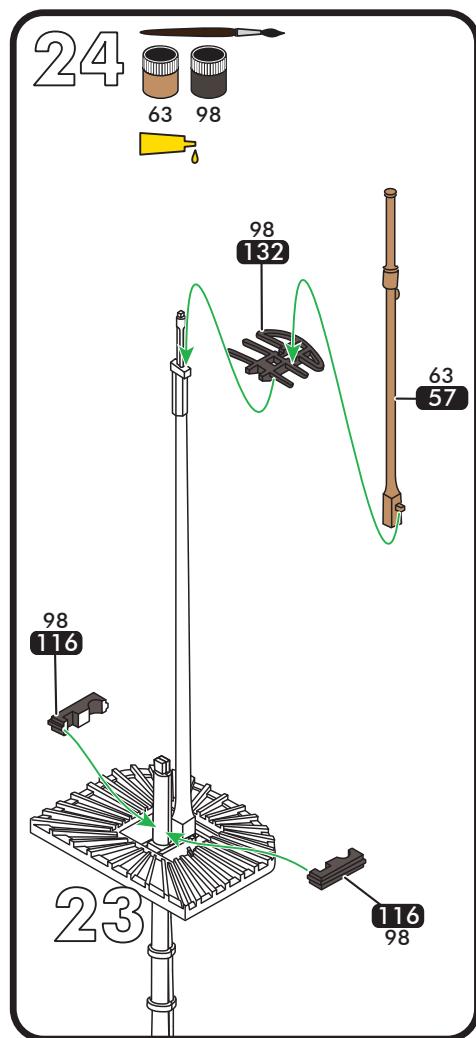
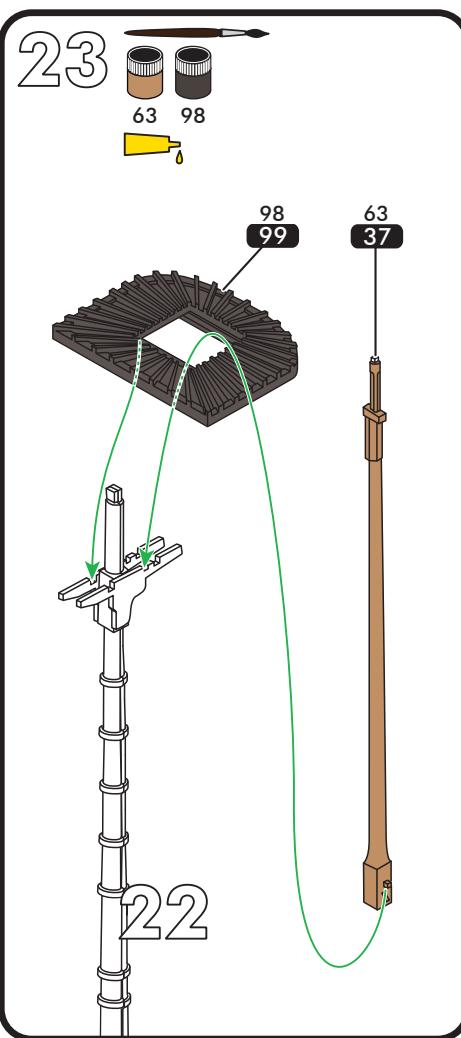
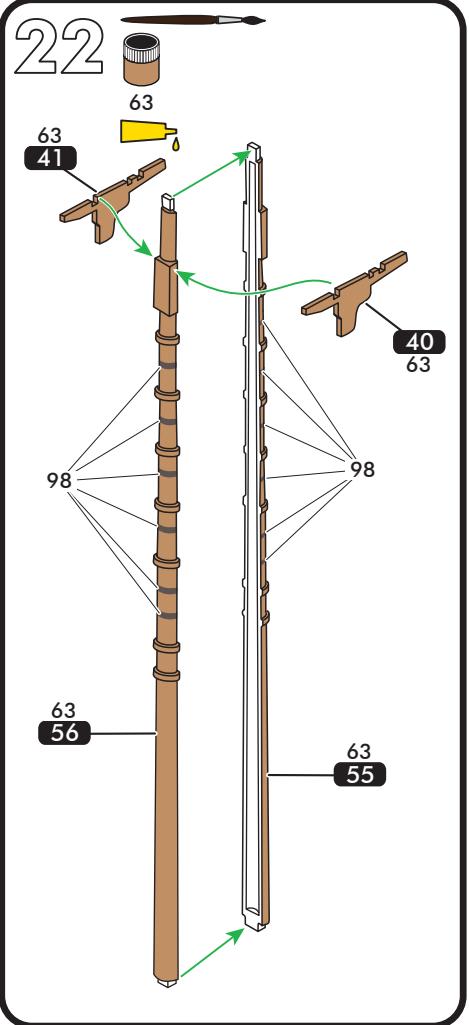
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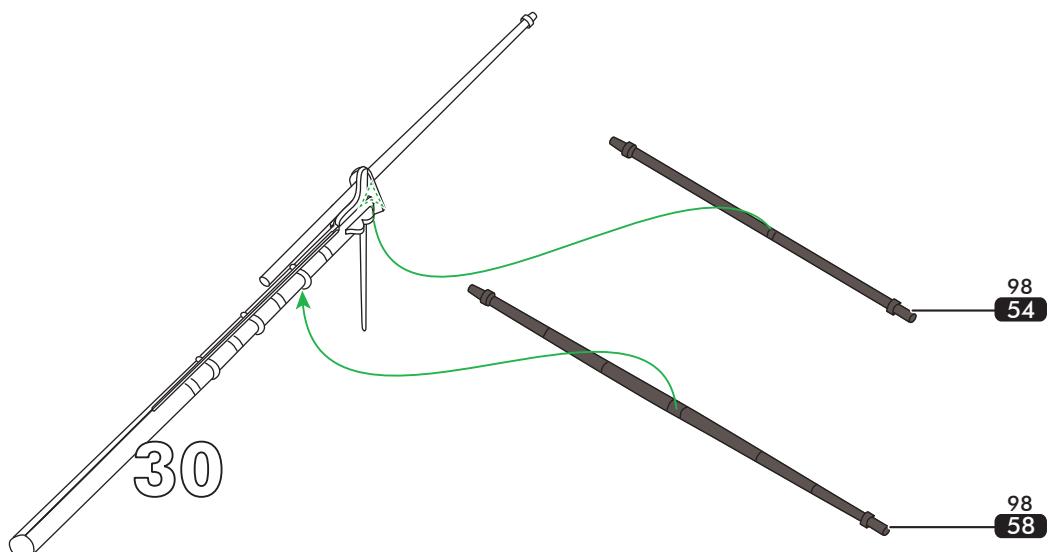
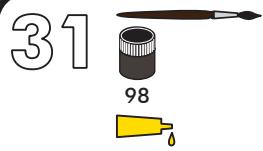
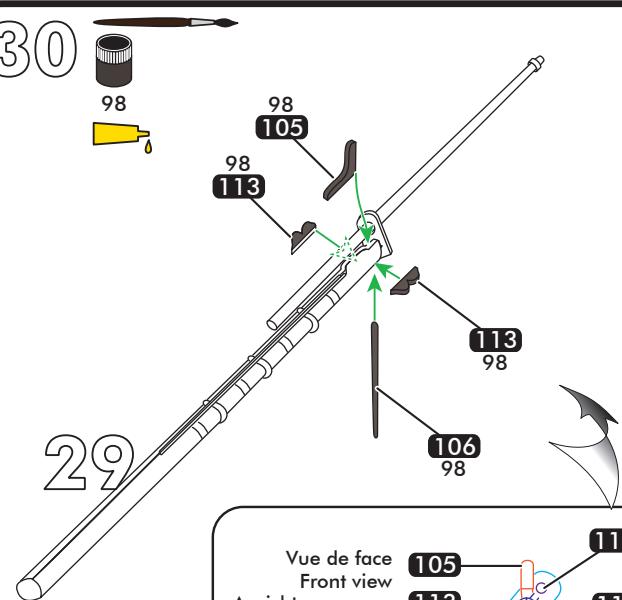
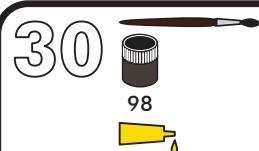
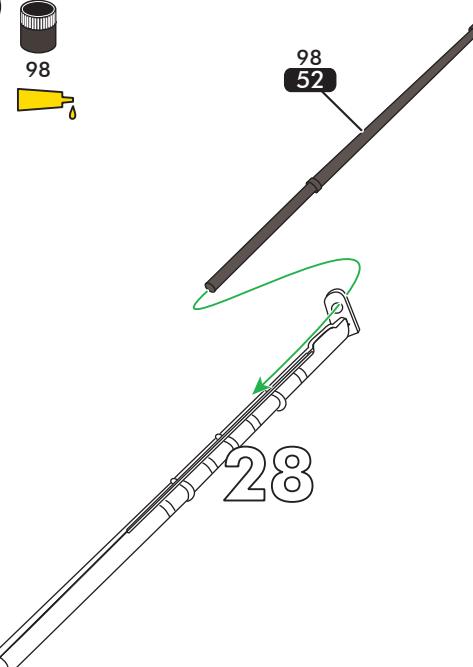
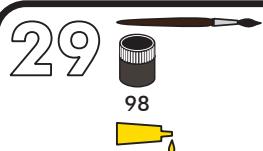
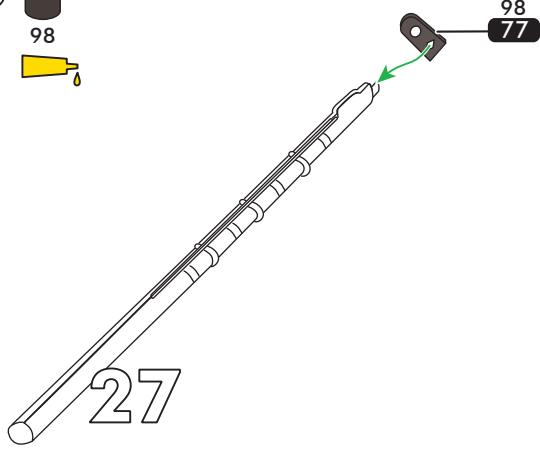
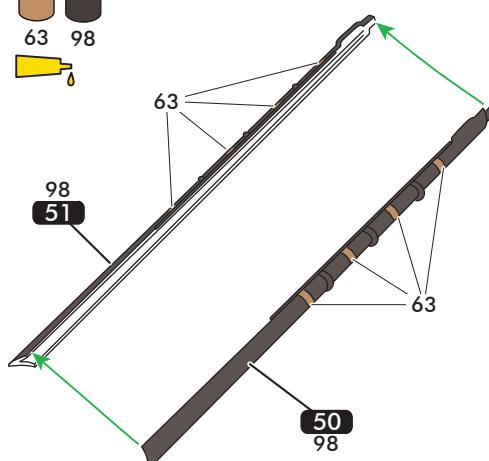
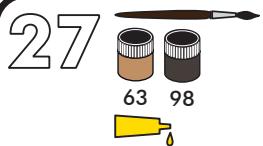


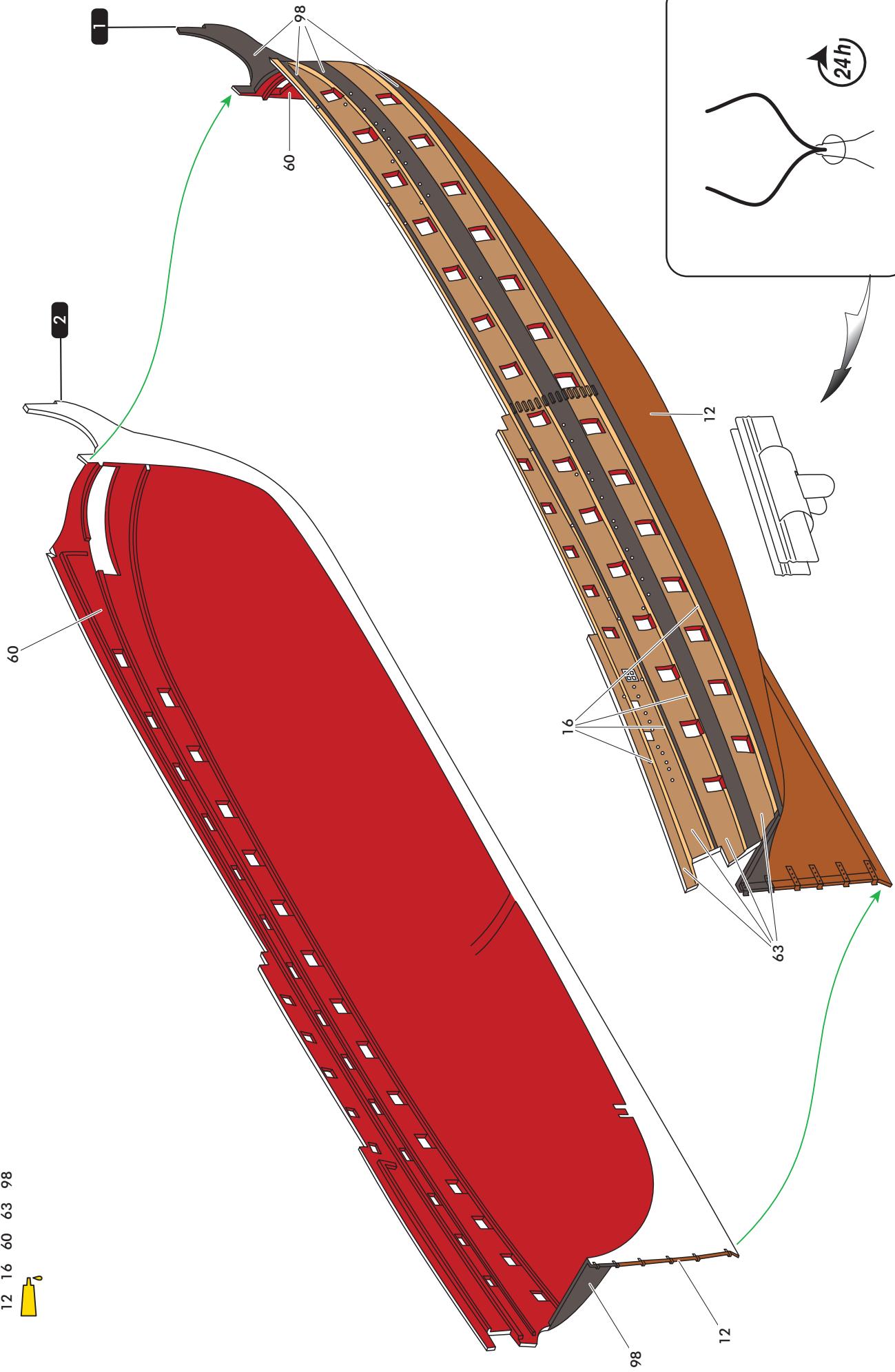
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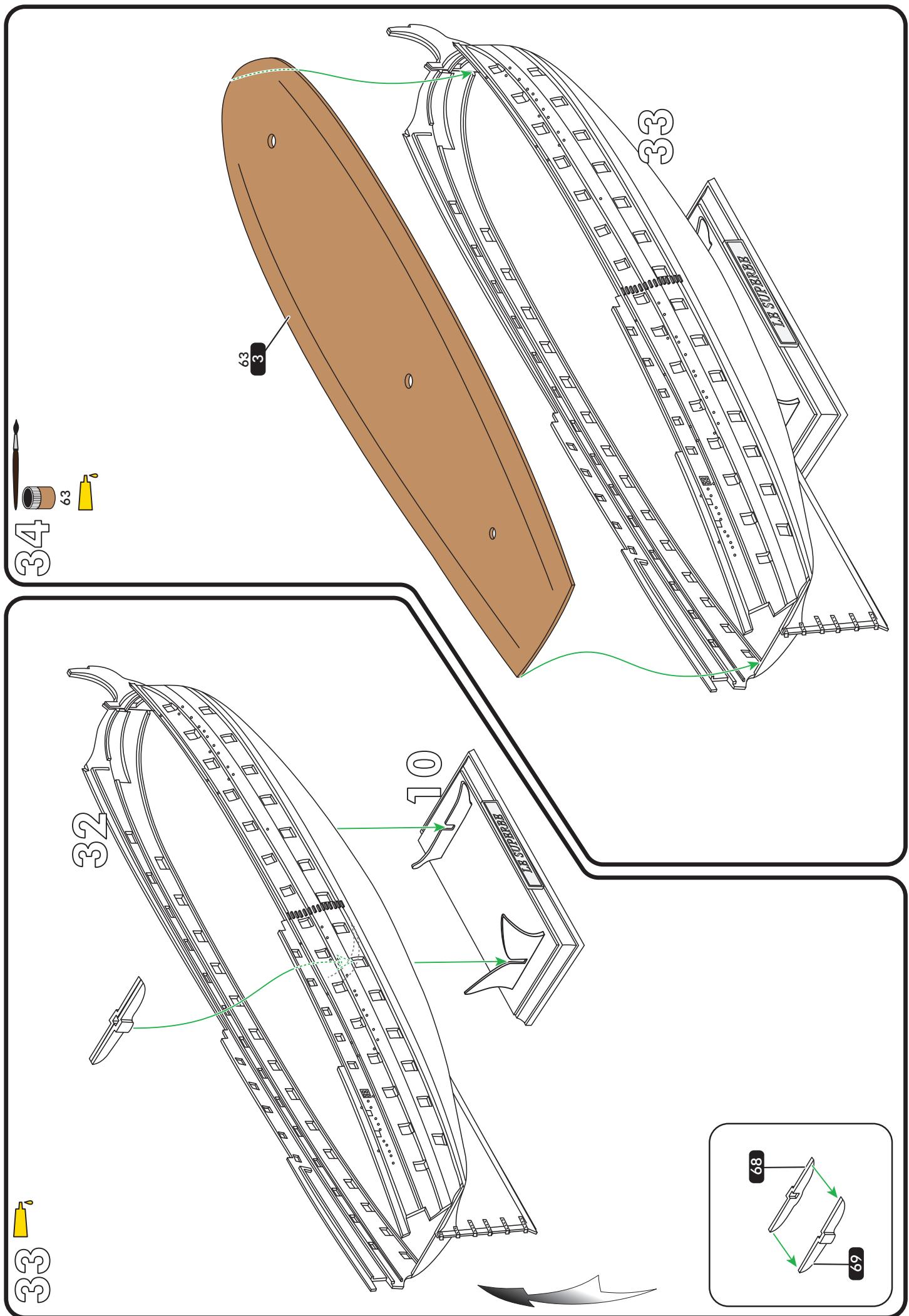


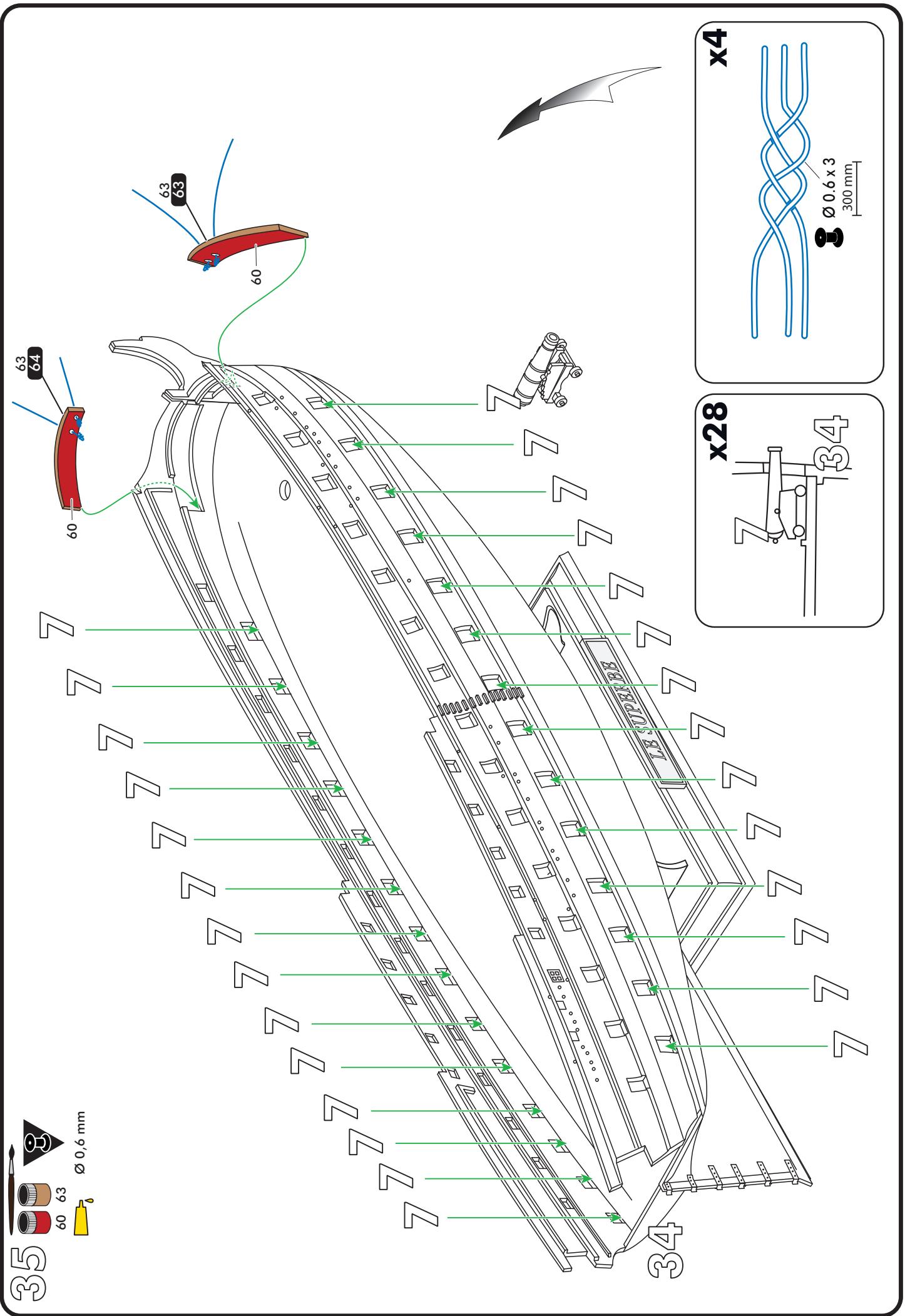


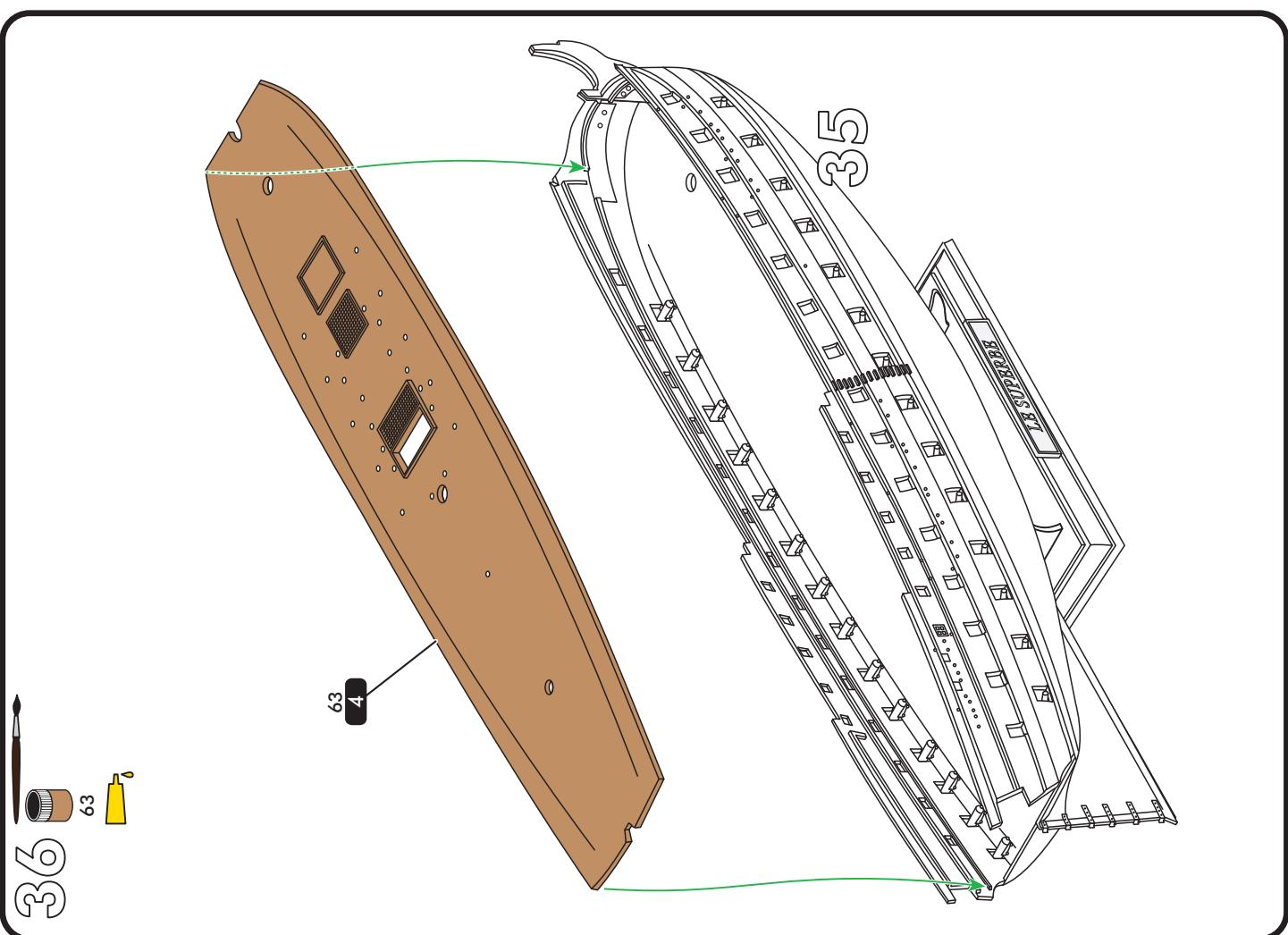
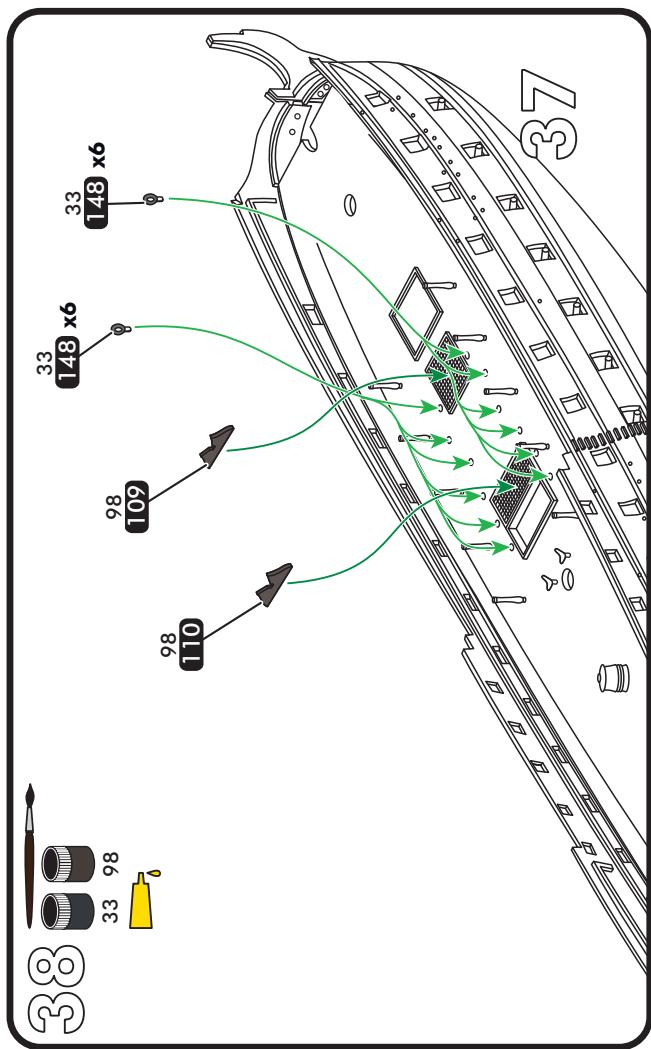
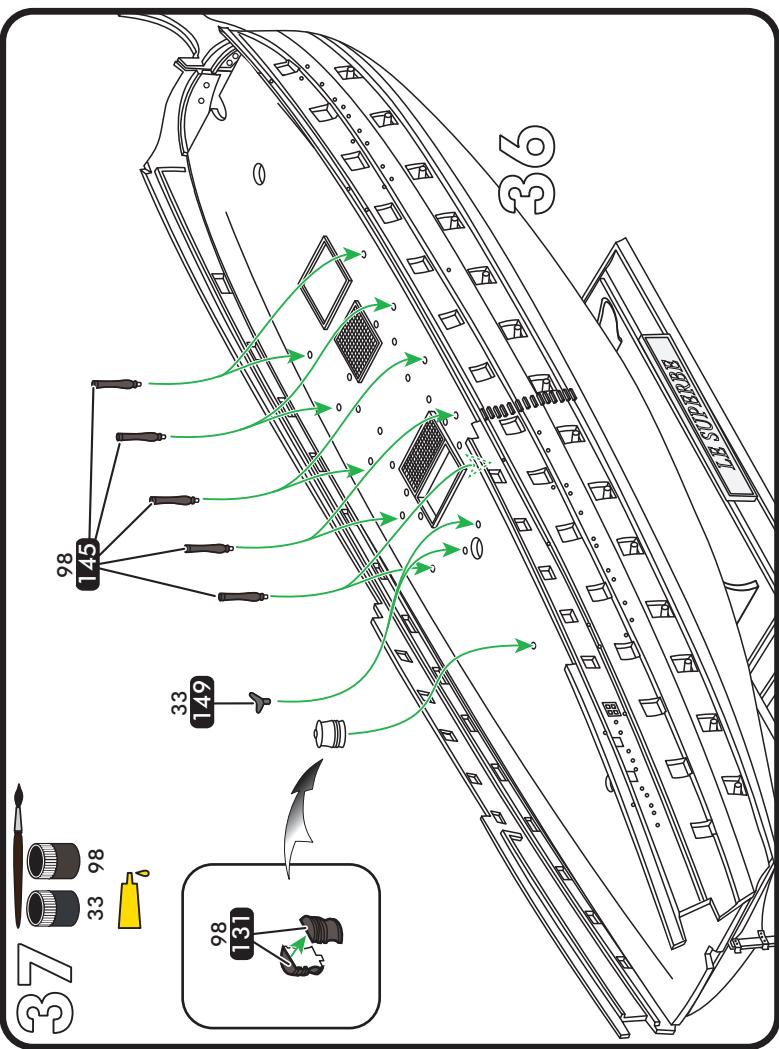




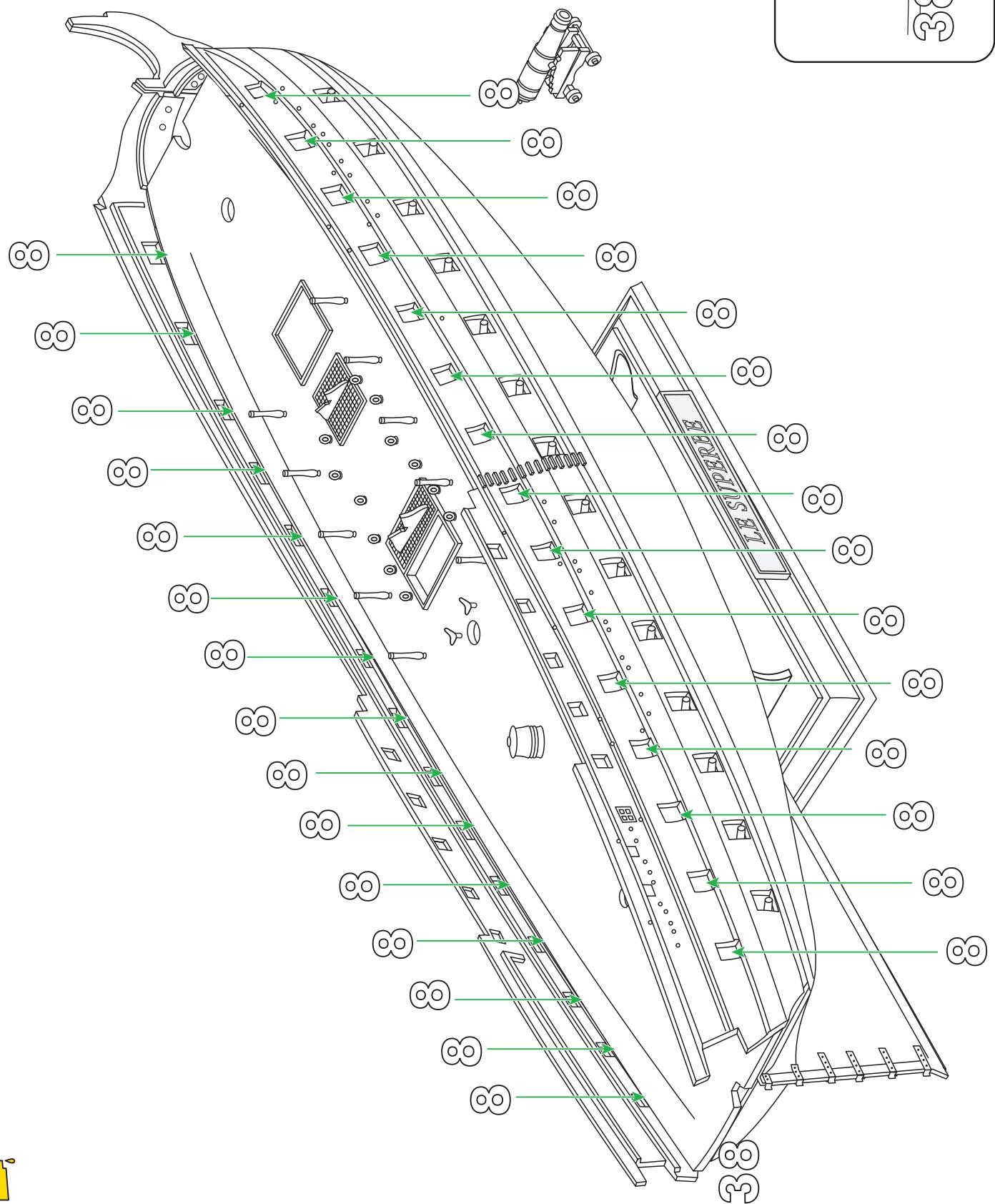
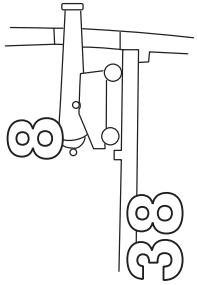




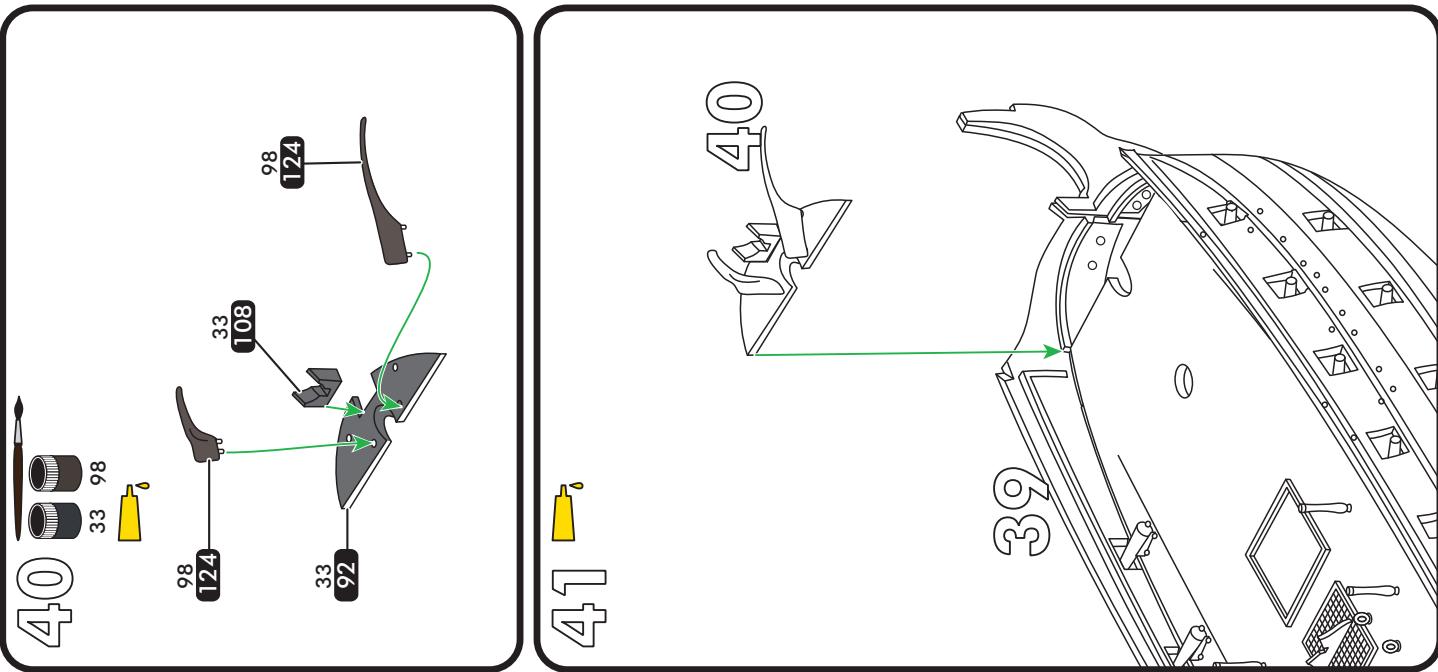
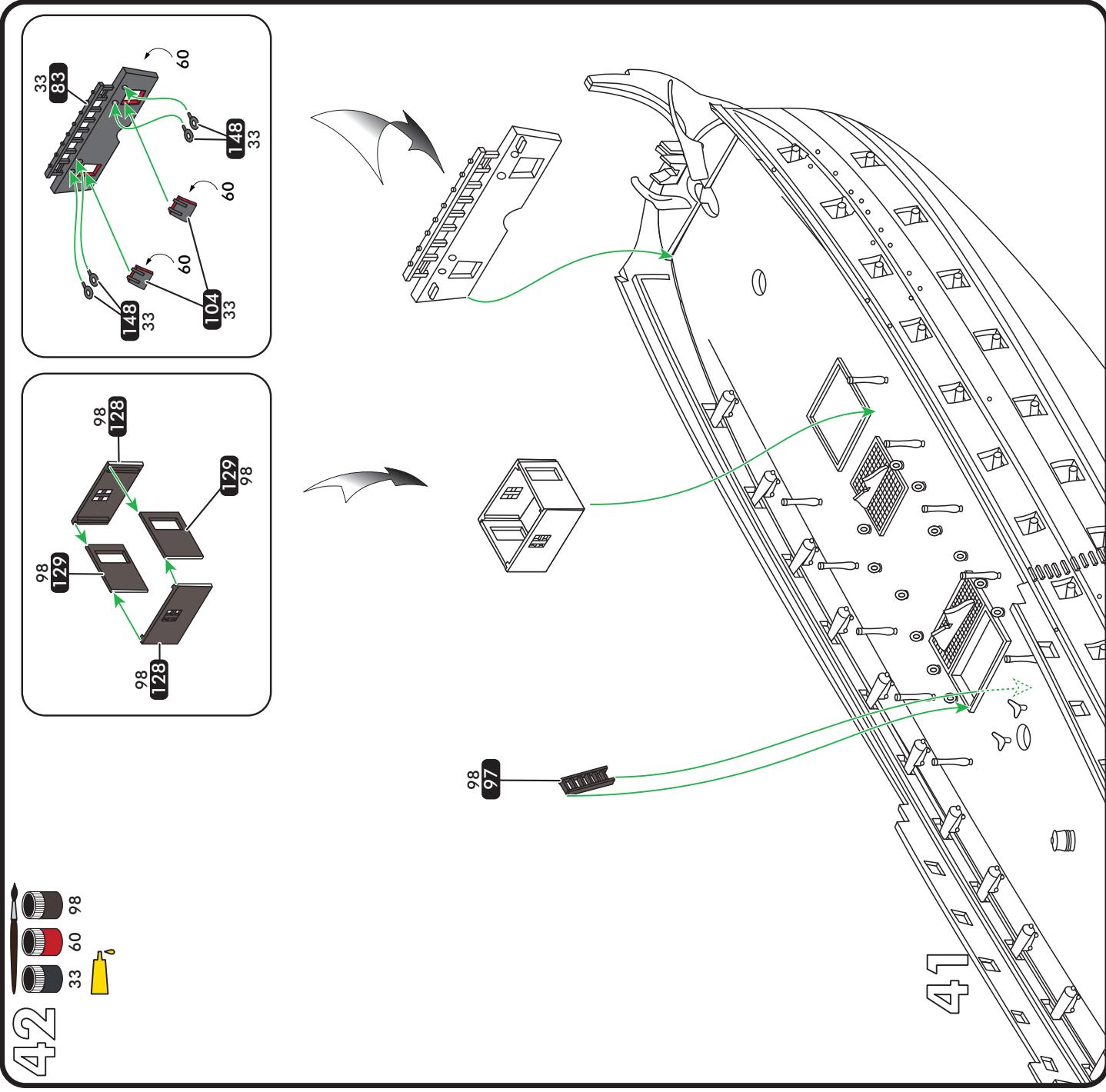


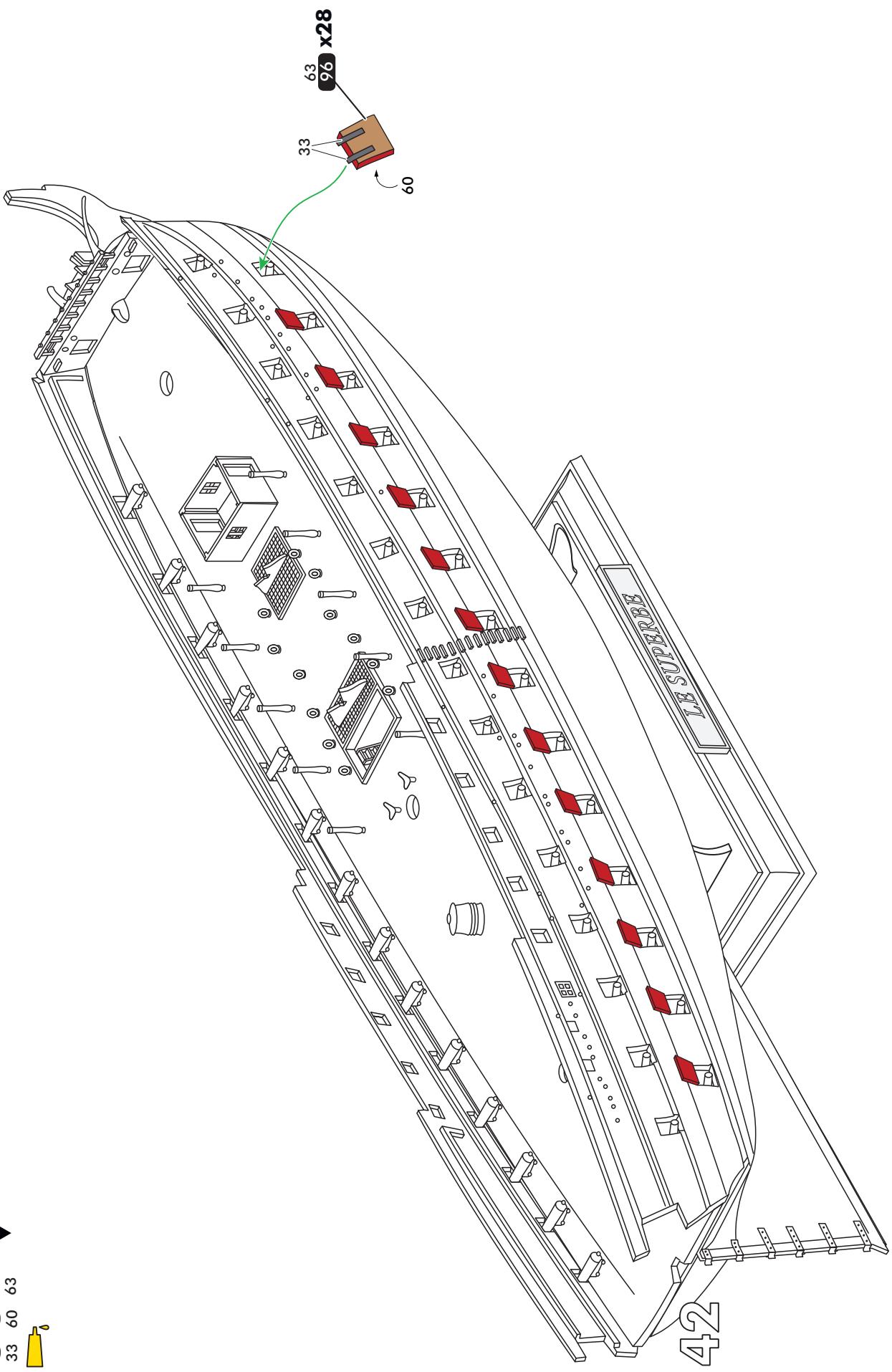


x30

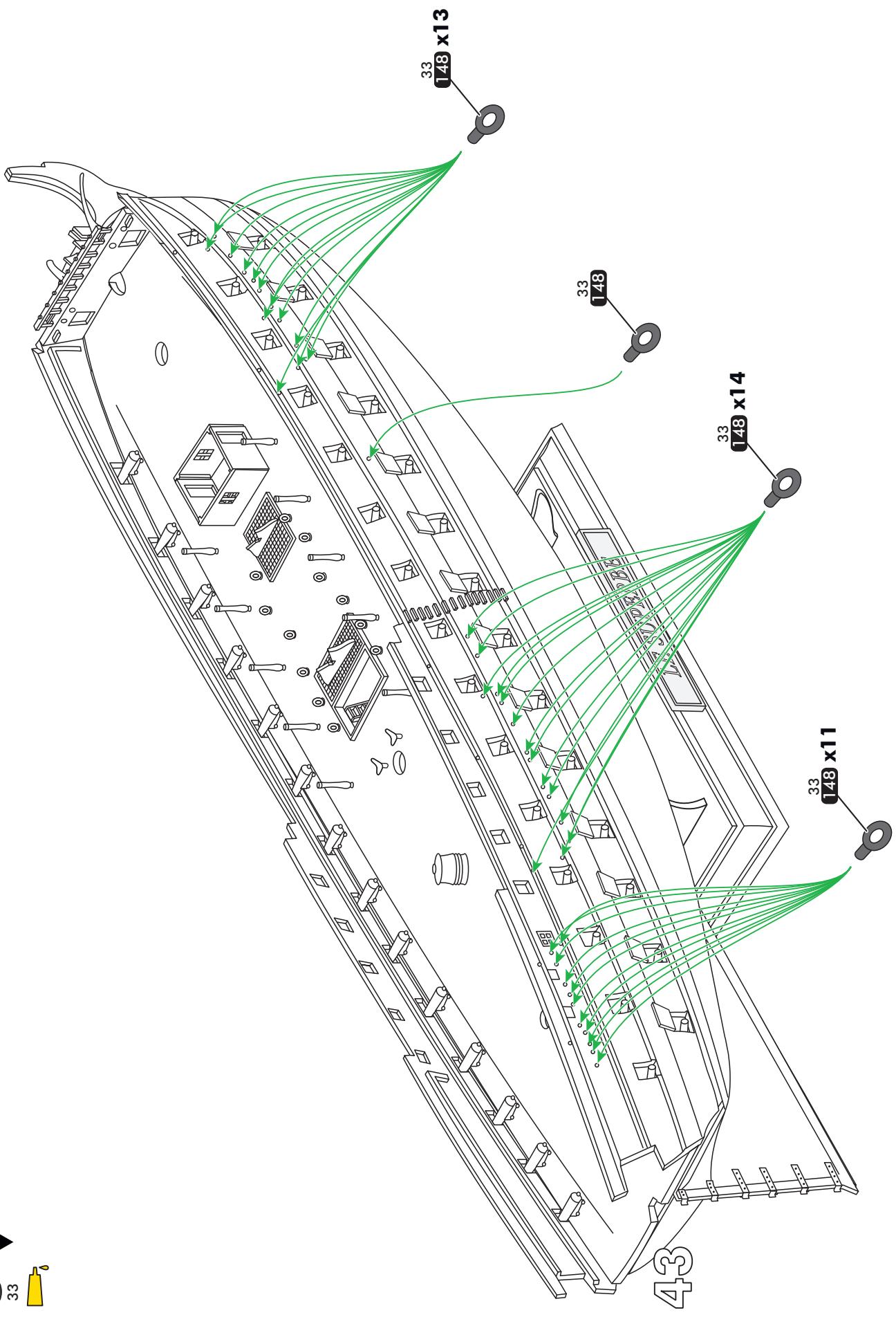


39



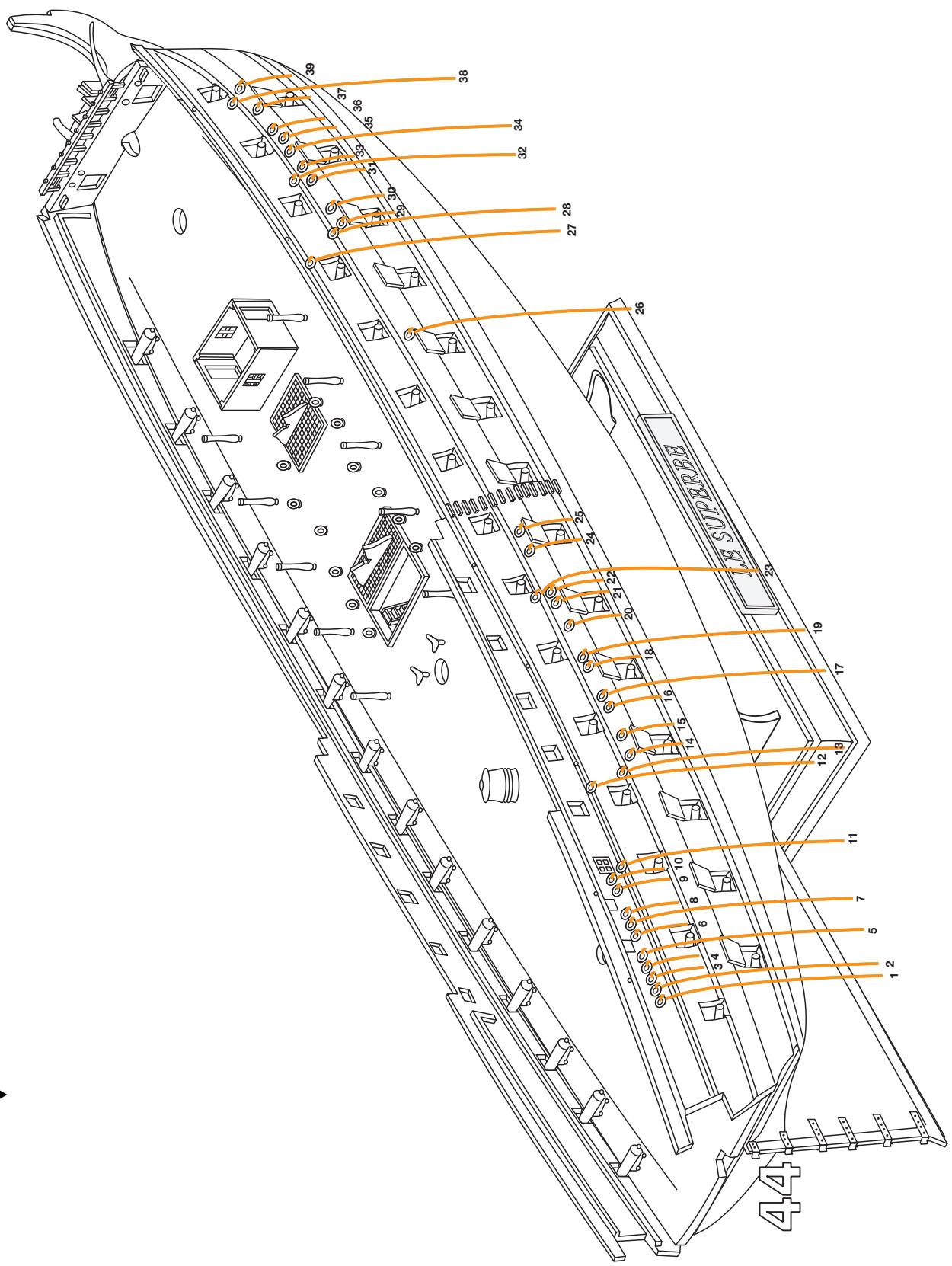


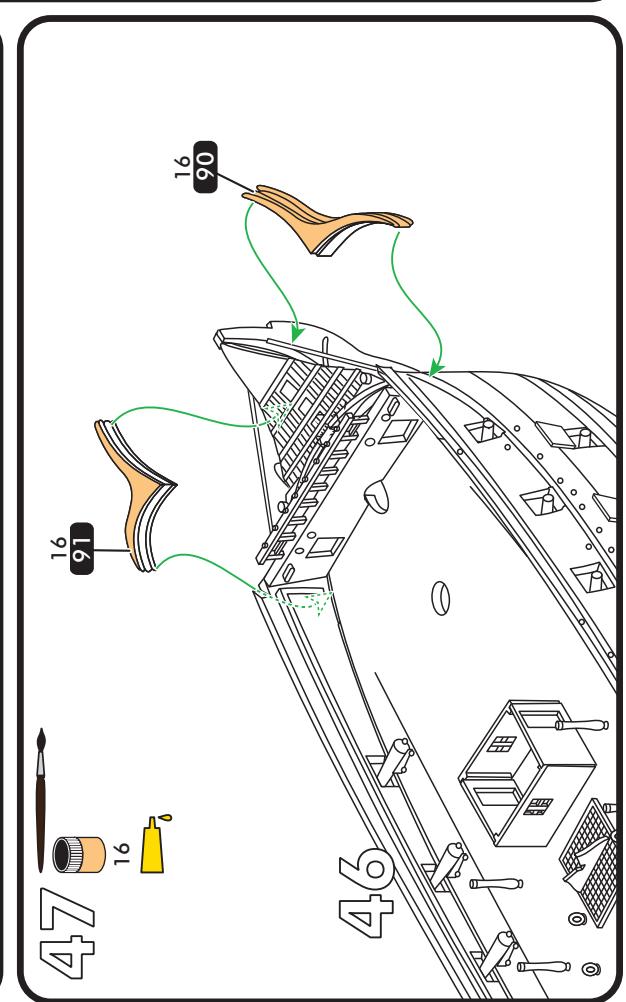
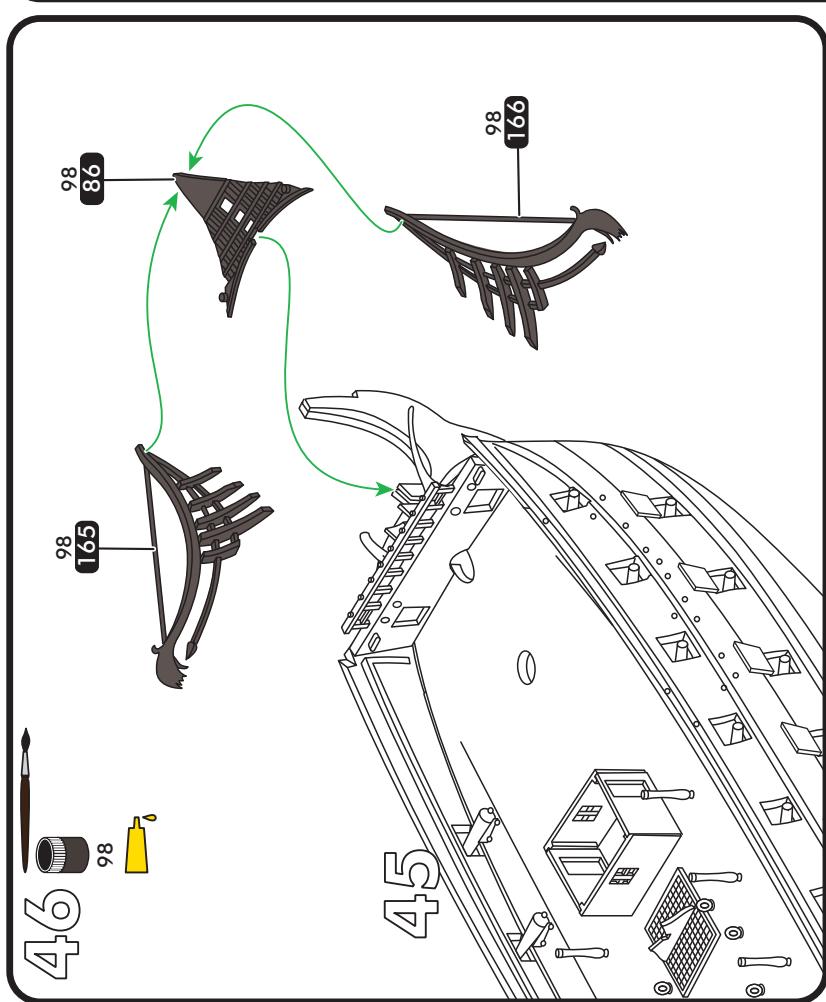
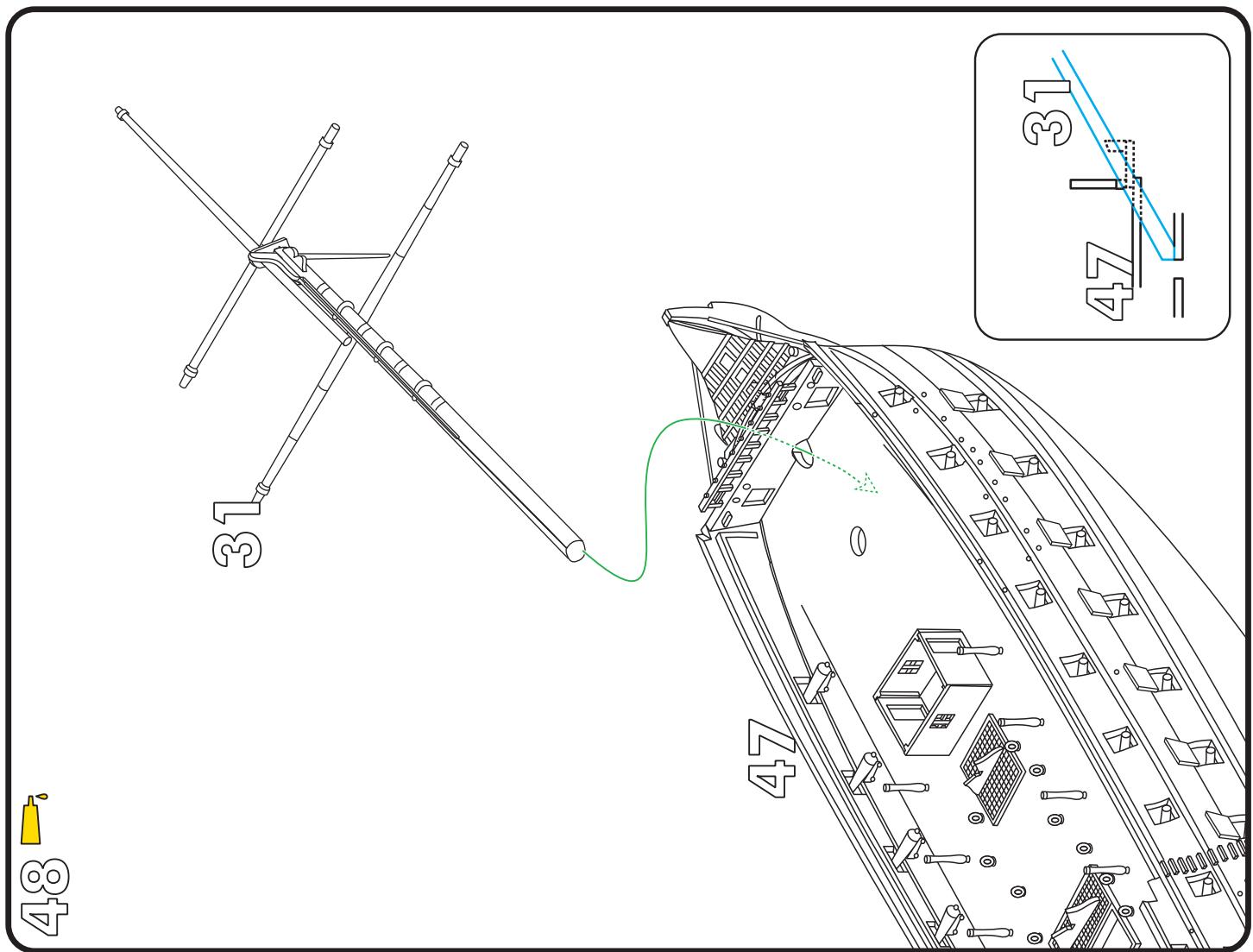
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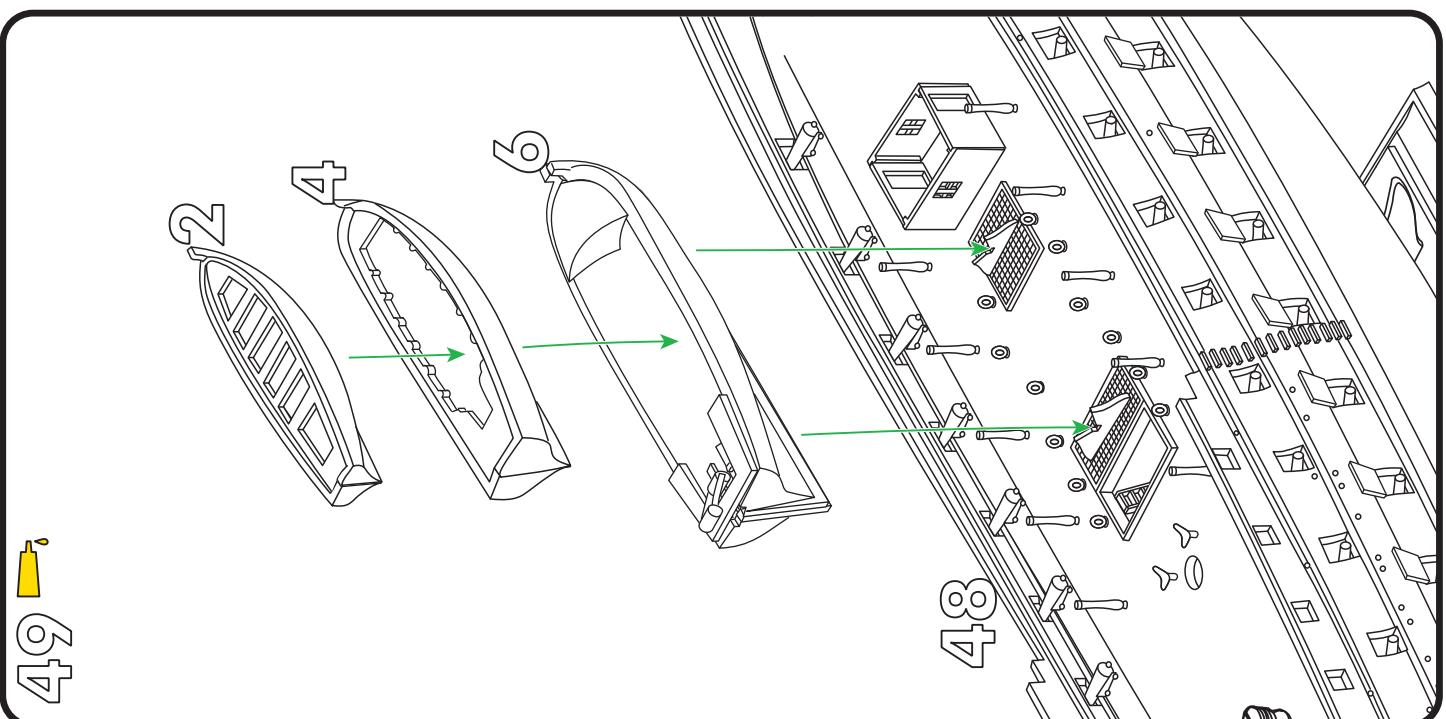
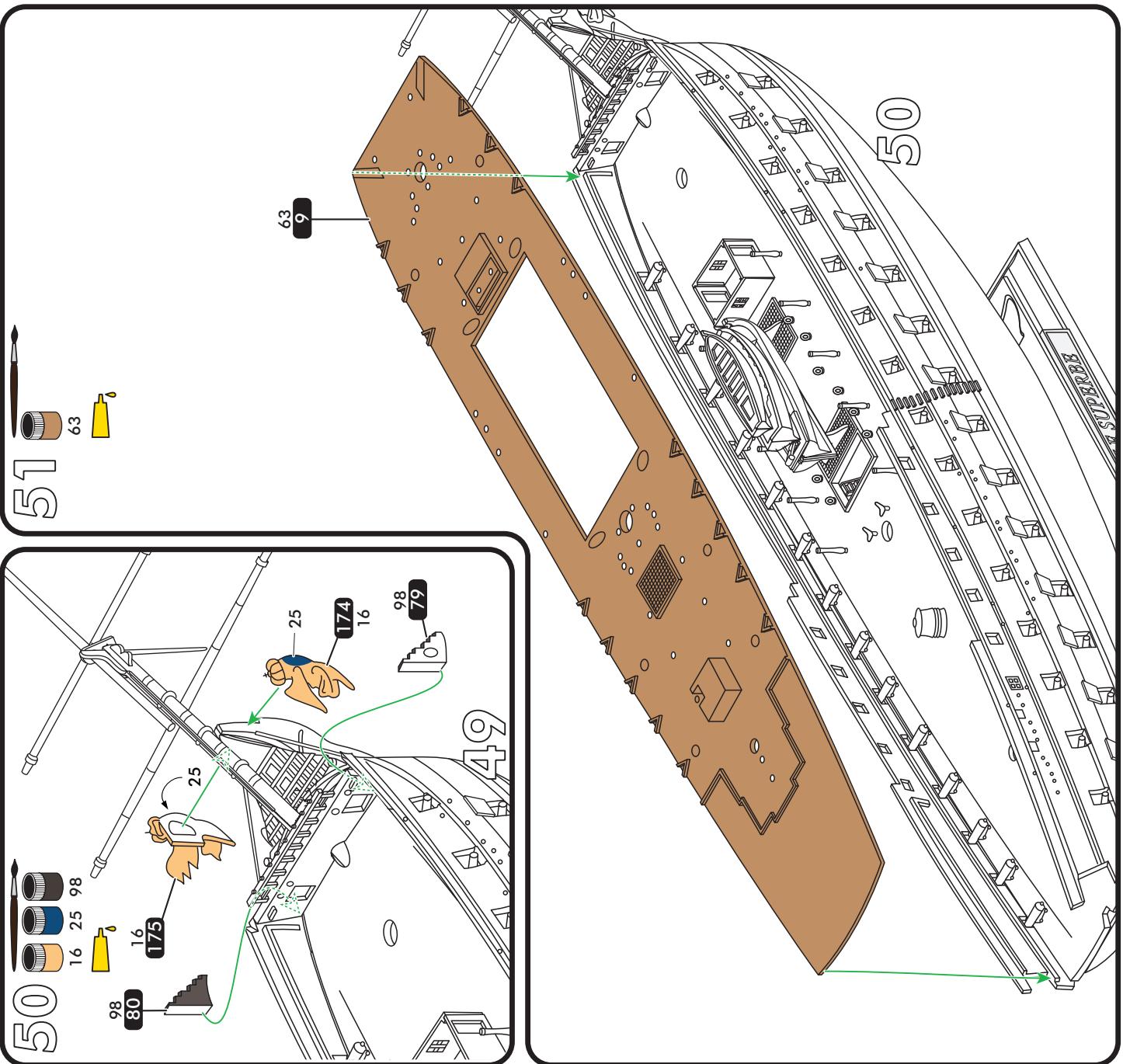


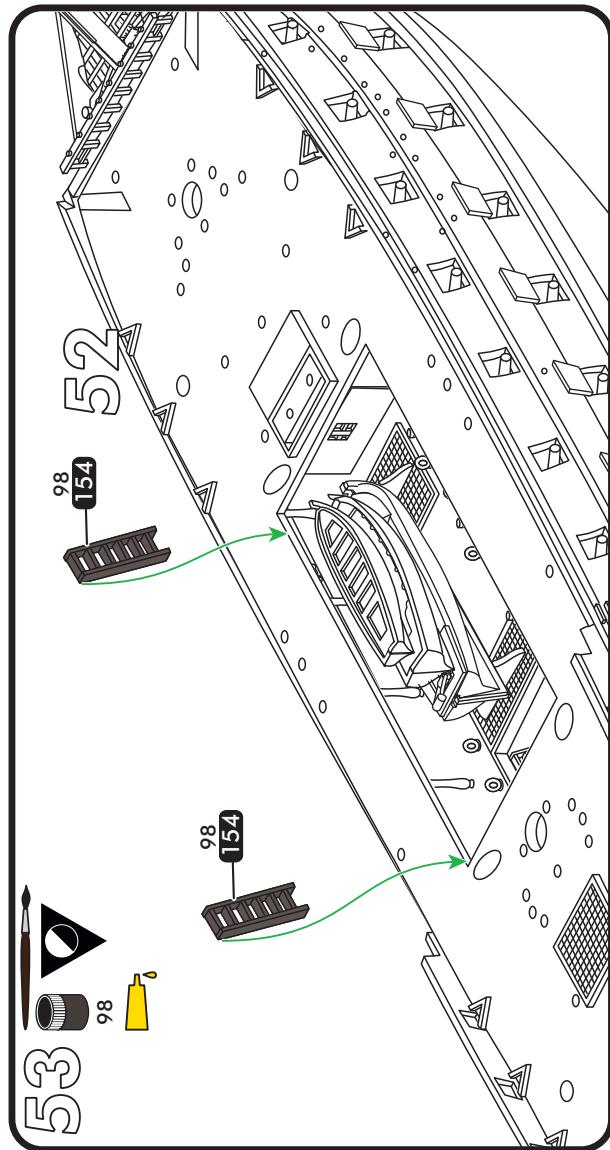
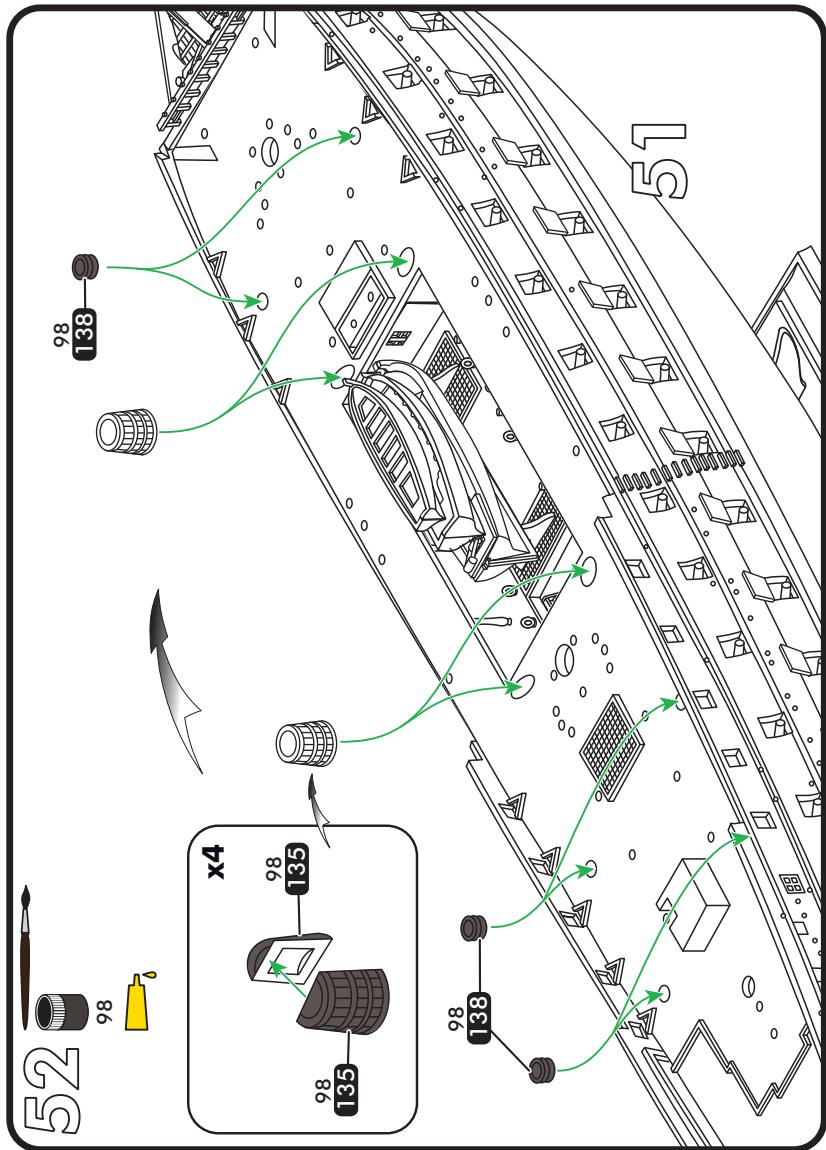
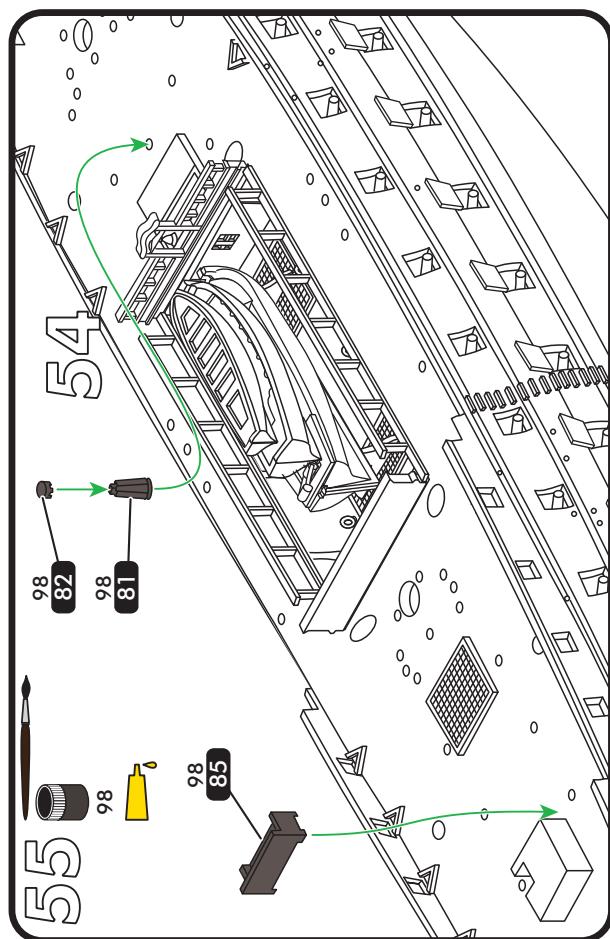
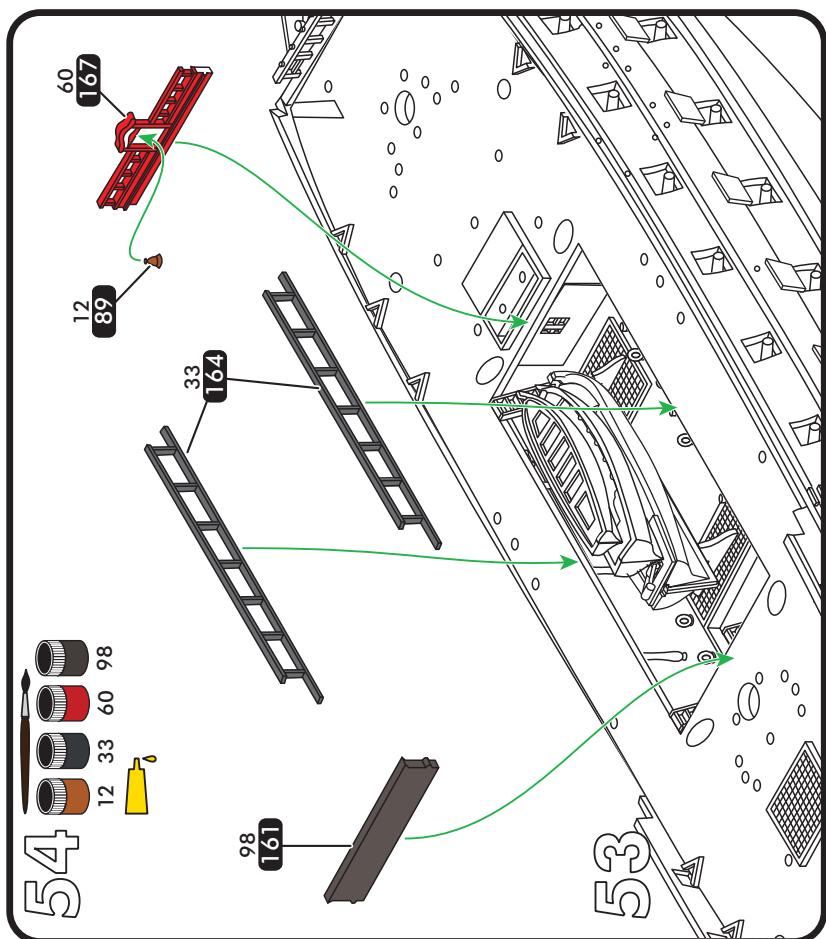
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43

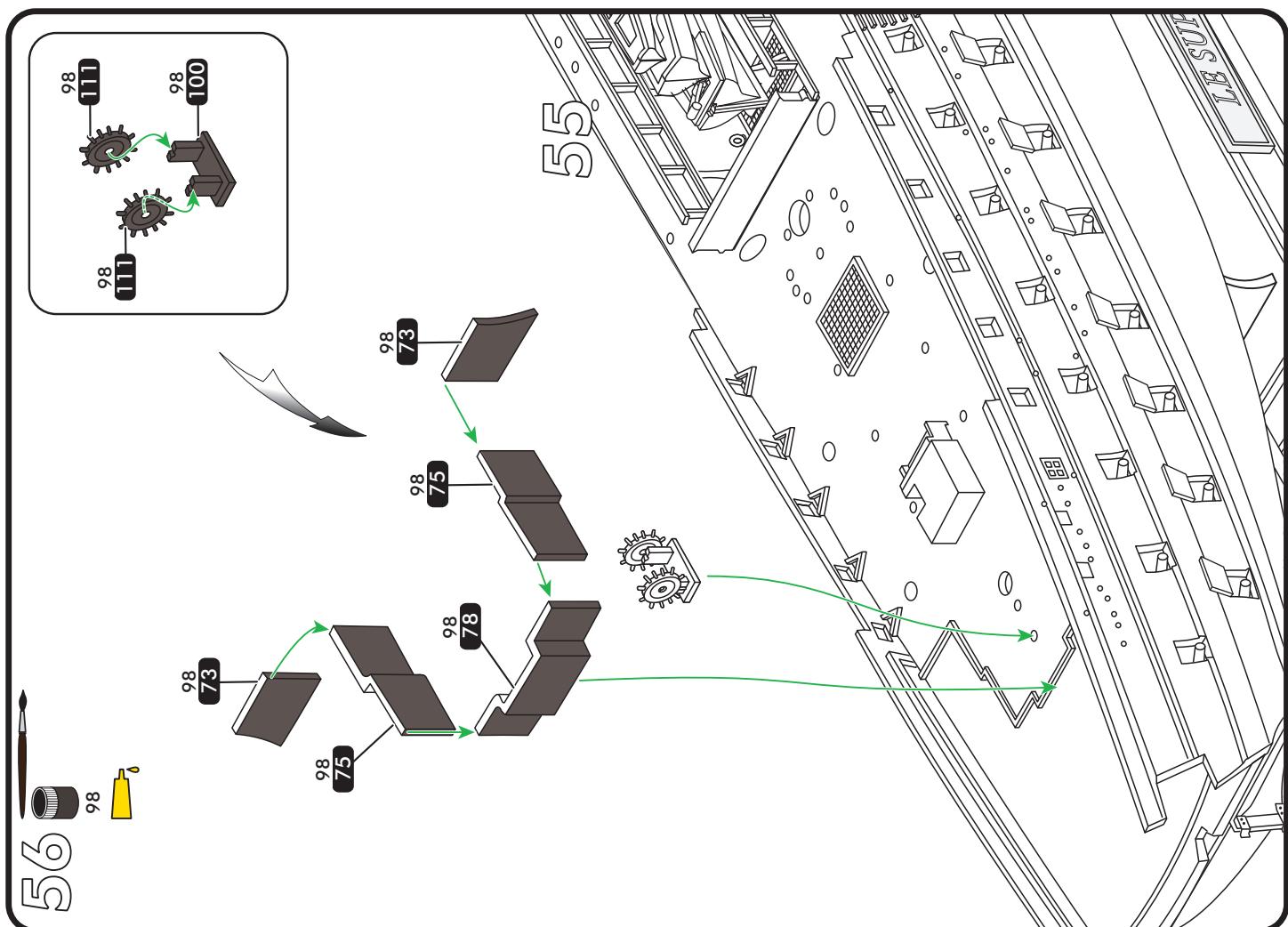
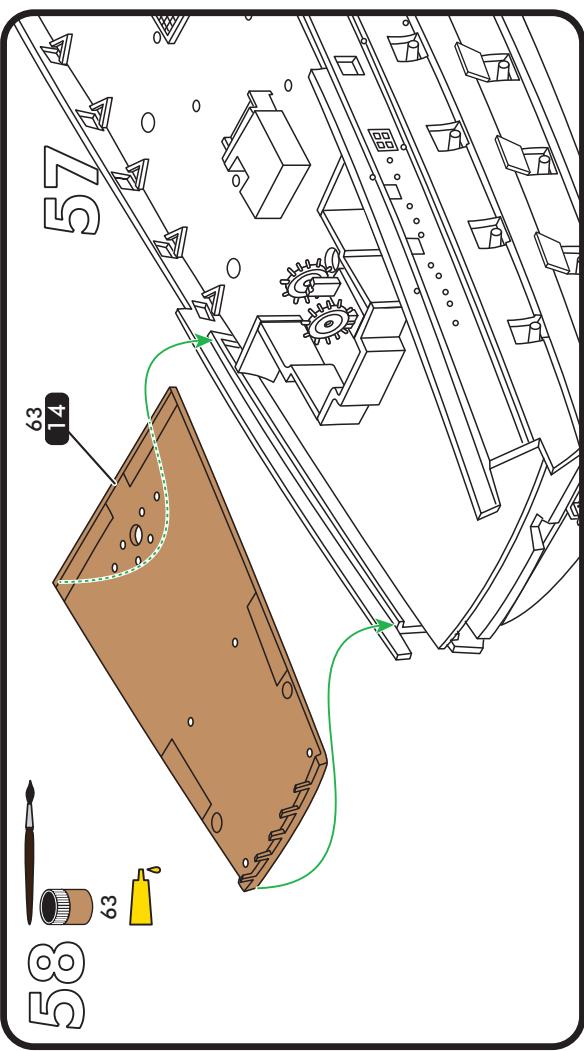
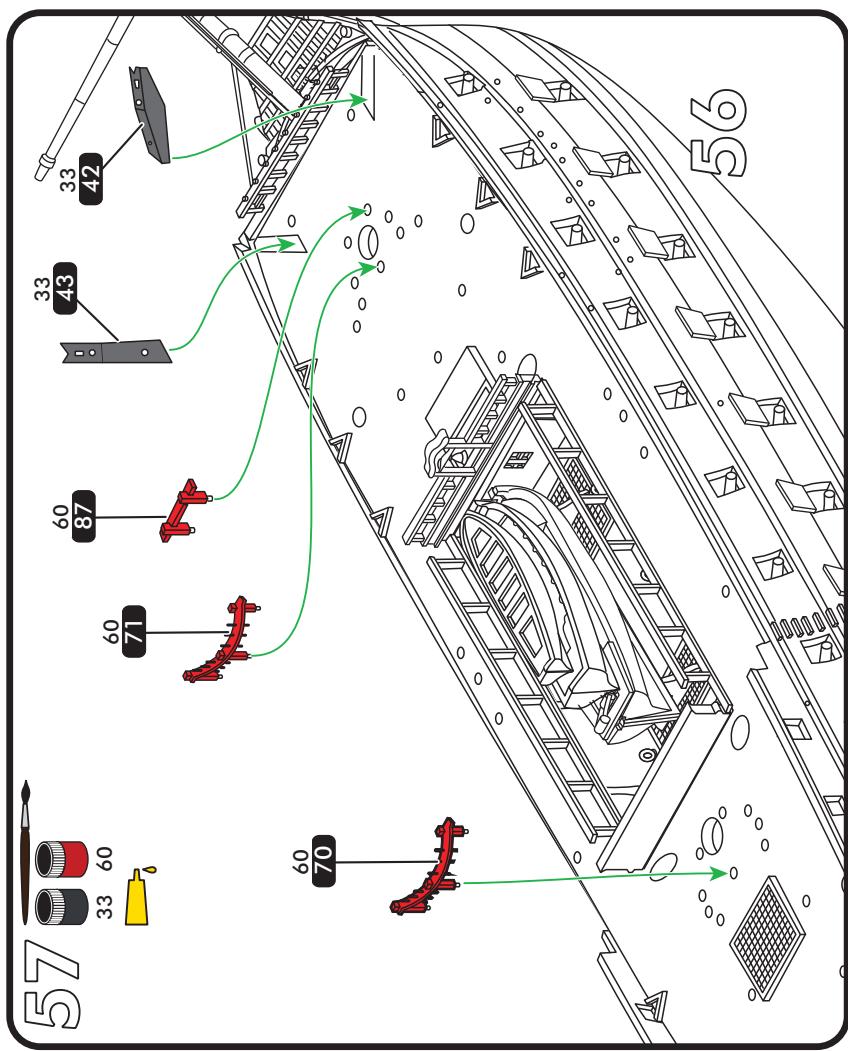
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1	0,3	300	mm
2	0,3	300	mm
3	0,3	120	mm
4	0,3	120	mm
5	0,3	250	mm
6	0,3	120	mm
7	0,3	350	mm
8	0,3	120	mm
9	0,3	120	mm
10	0,3	120	mm
11	0,3	220	mm
12	0,6	380	mm
13	0,3	380	mm
14	0,3	120	mm
15	0,3	120	mm
16	0,3	120	mm
17	0,3	380	mm
18	0,3	120	mm
19	0,3	420	mm
20	0,3	120	mm
21	0,3	120	mm
22	0,3	120	mm
23	0,3	380	mm
24	0,3	120	mm
25	0,3	120	mm
26	0,3	220	mm
27	0,6	350	mm
28	0,3	350	mm
29	0,3	120	mm
30	0,3	120	mm
31	0,3	120	mm
32	0,3	400	mm
33	0,3	120	mm
34	0,3	350	mm
35	0,3	120	mm
36	0,3	120	mm
37	0,3	120	mm
38	0,3	200	mm
39	0,3	120	mm

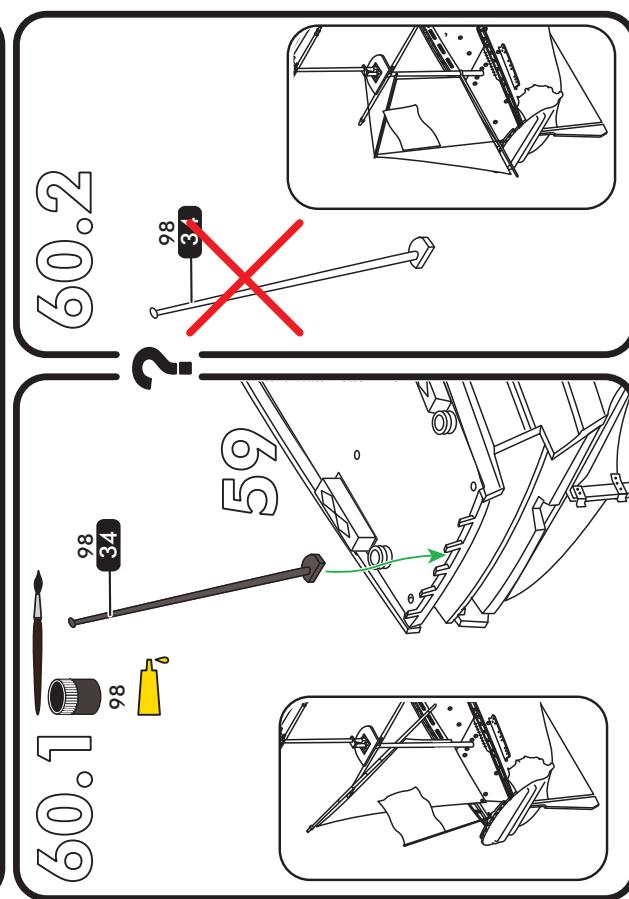
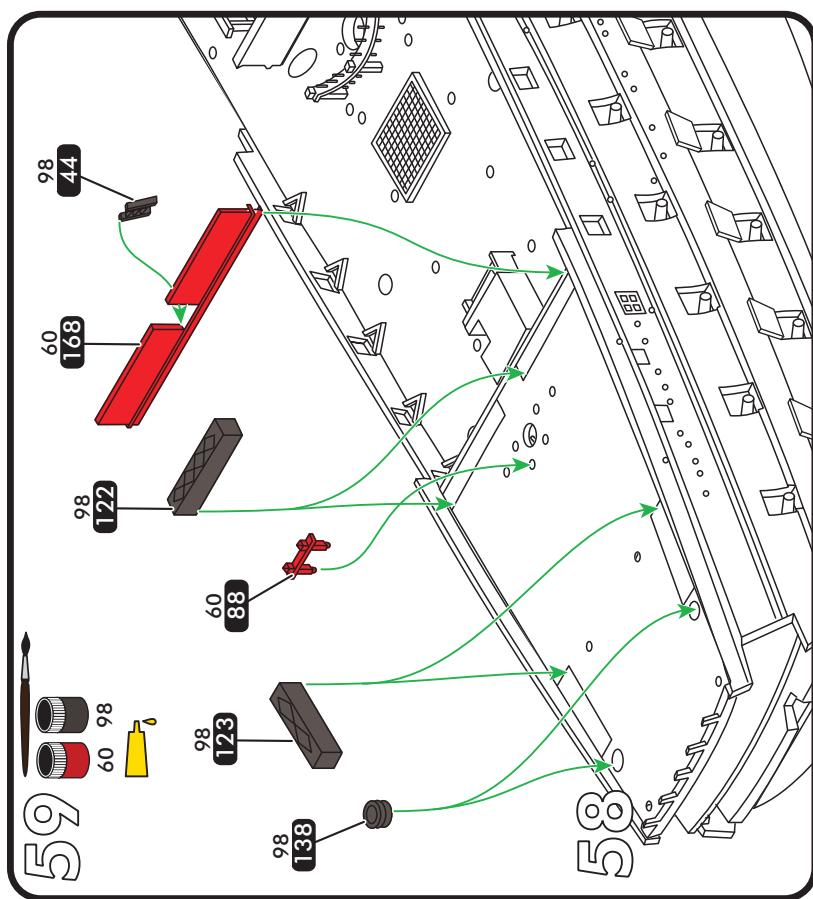
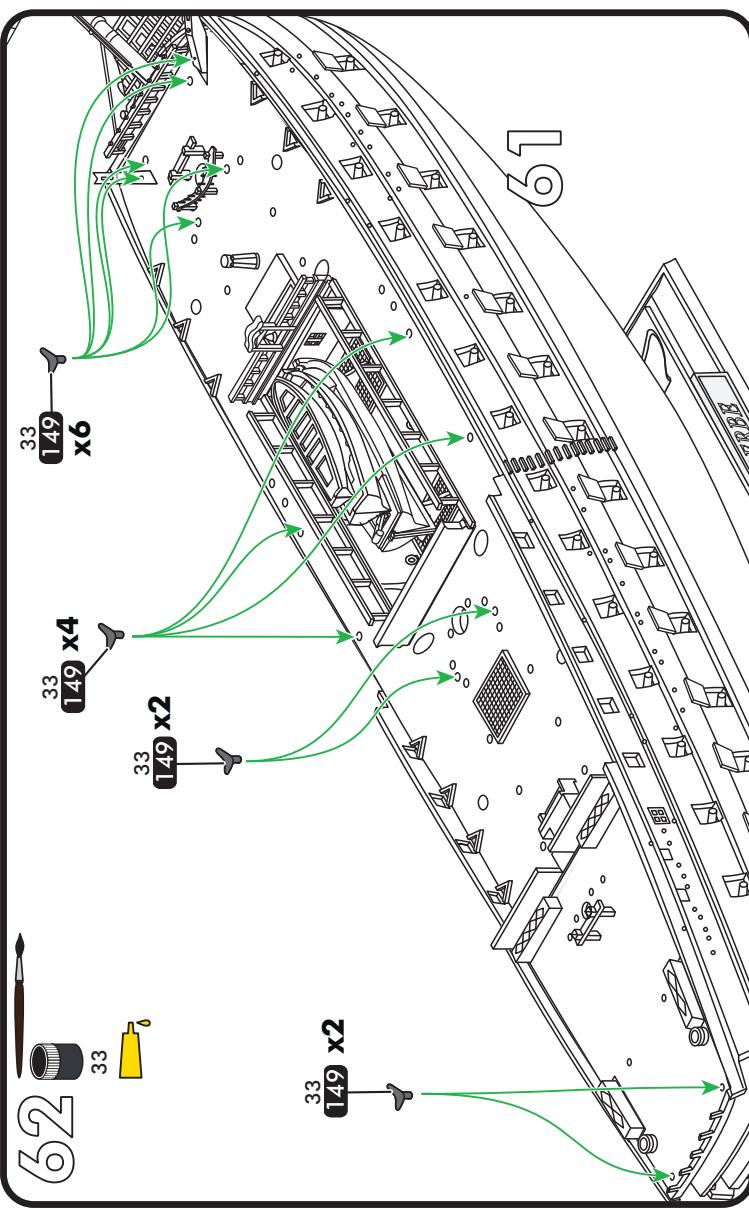
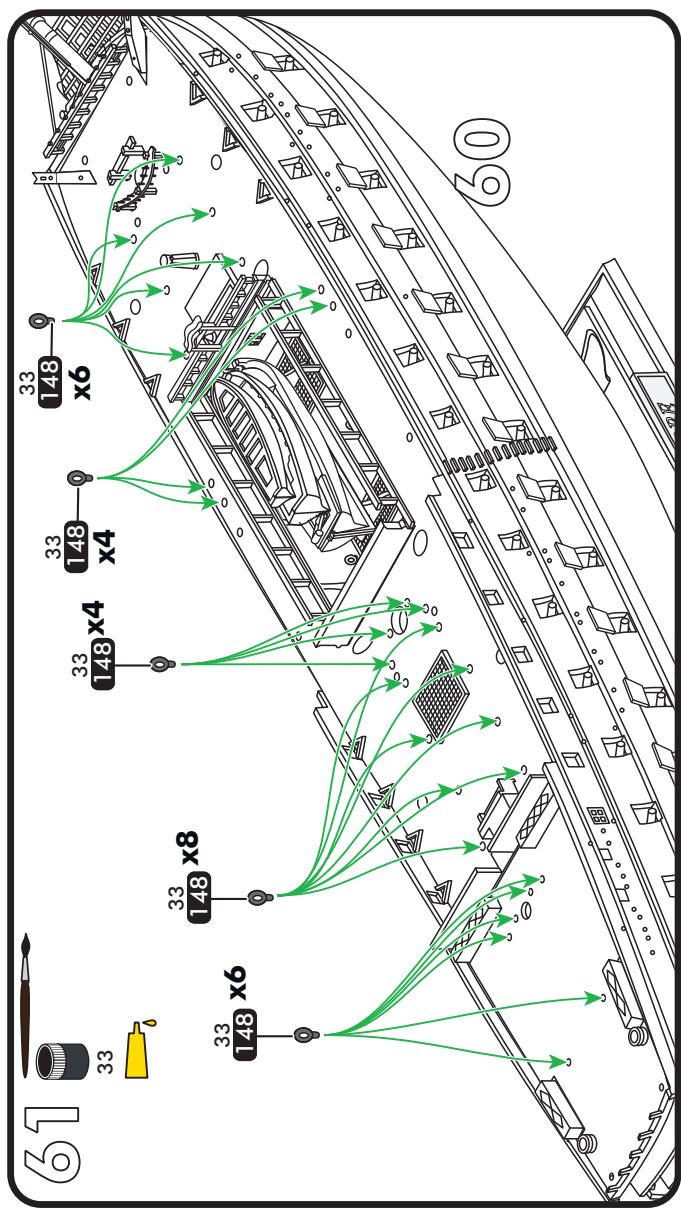


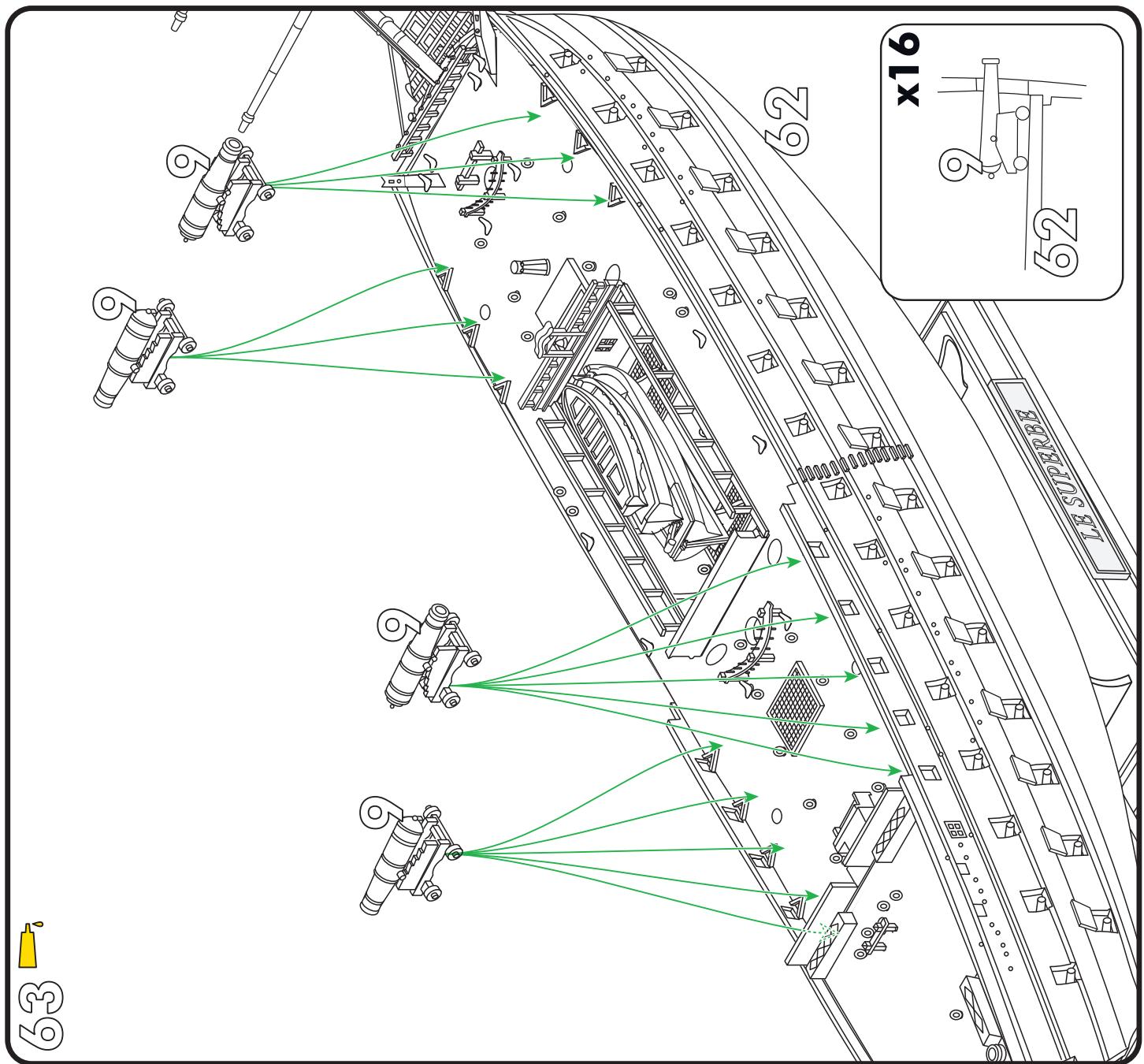
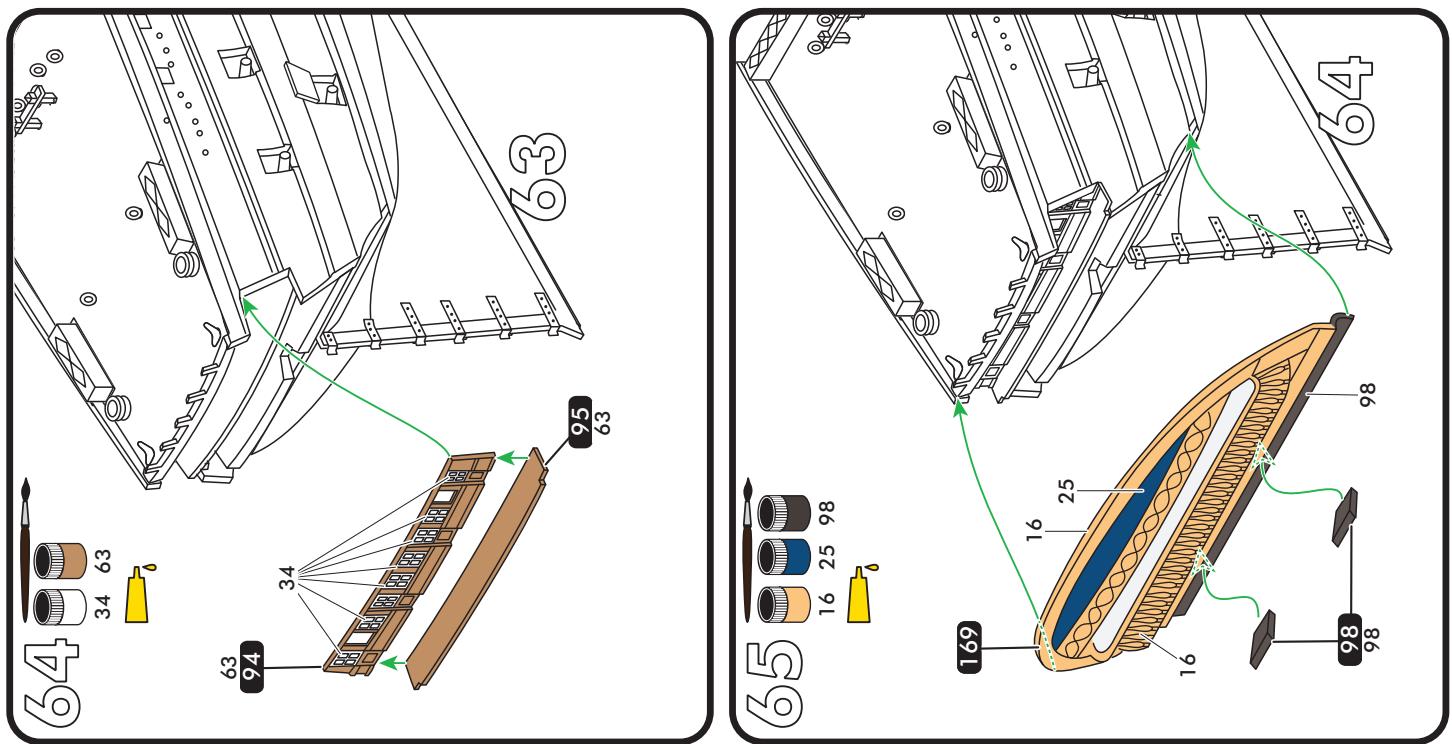


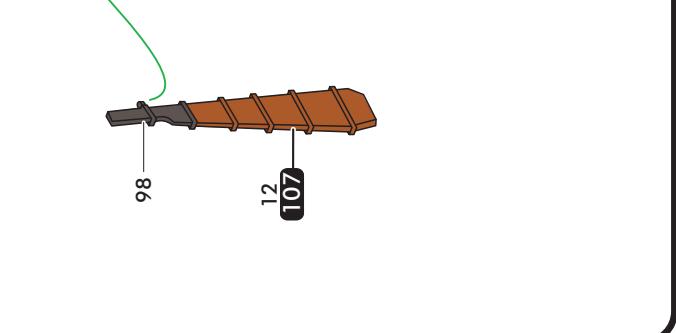
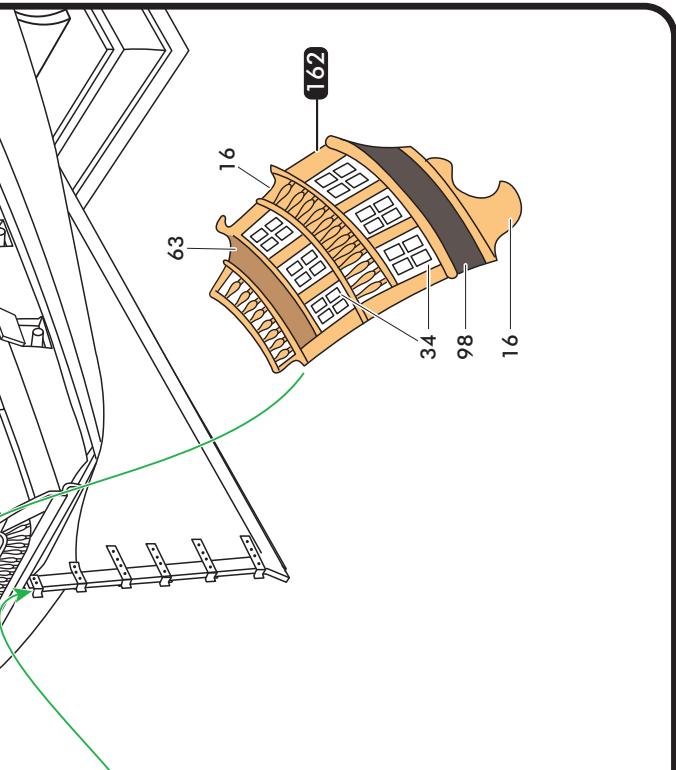
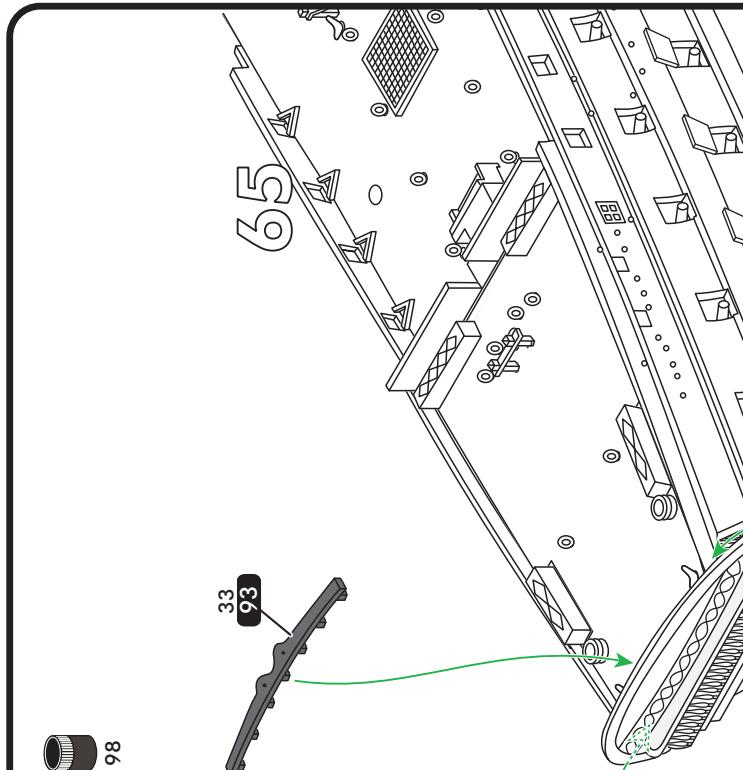
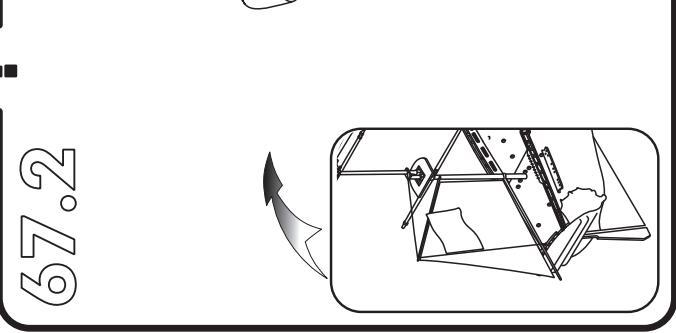
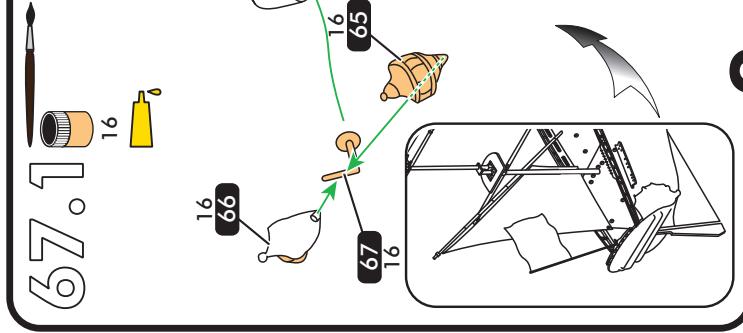
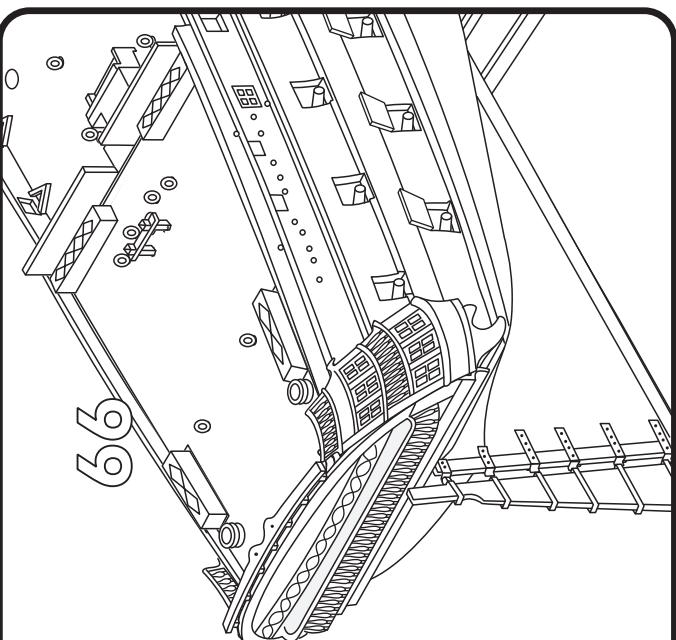
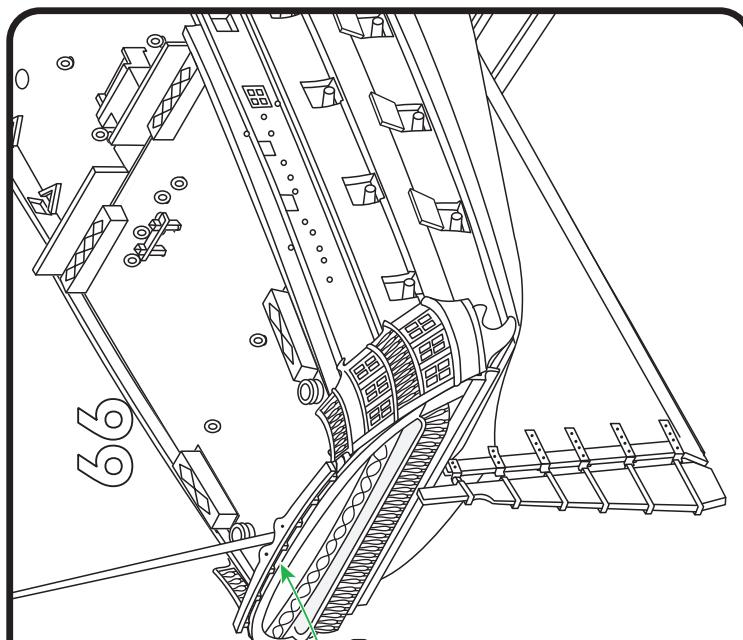






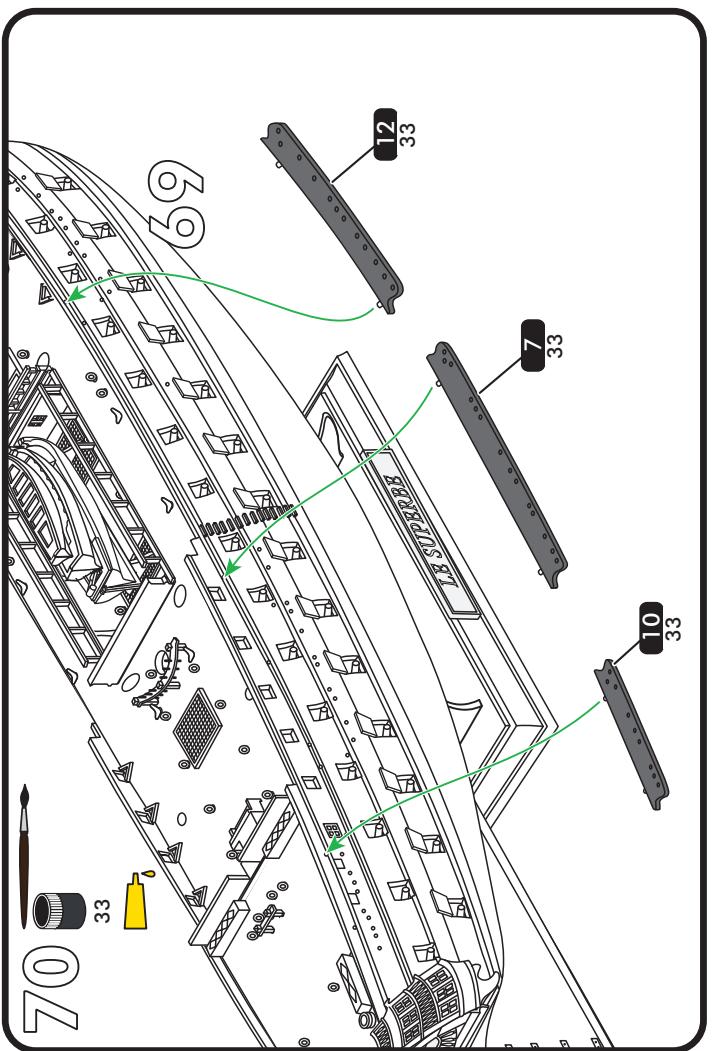
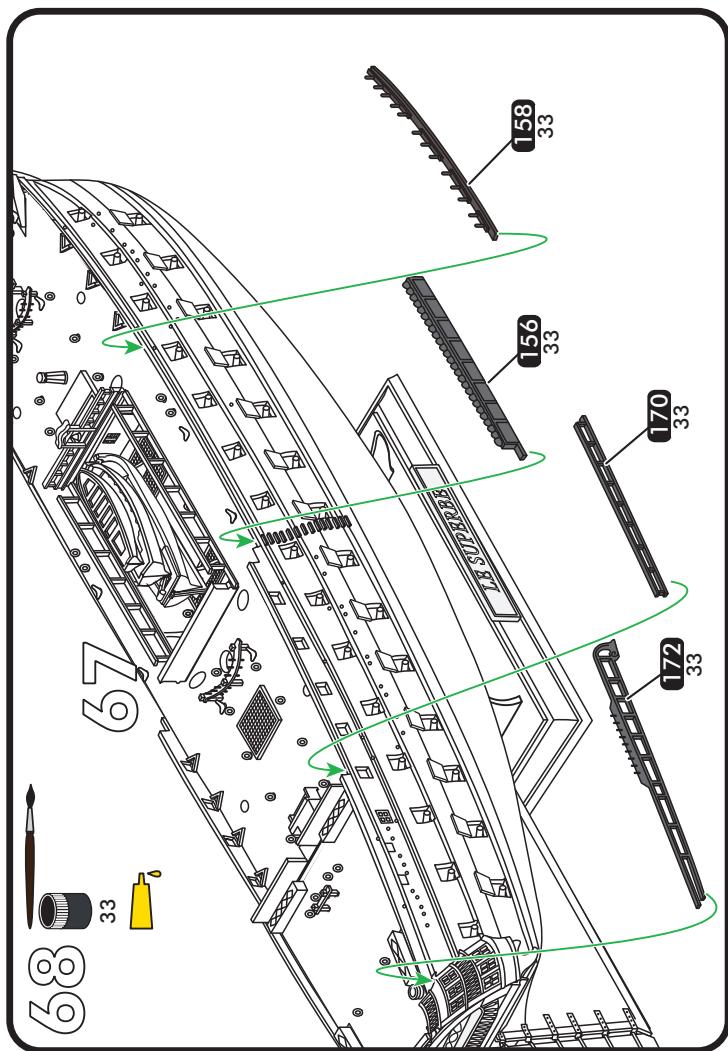
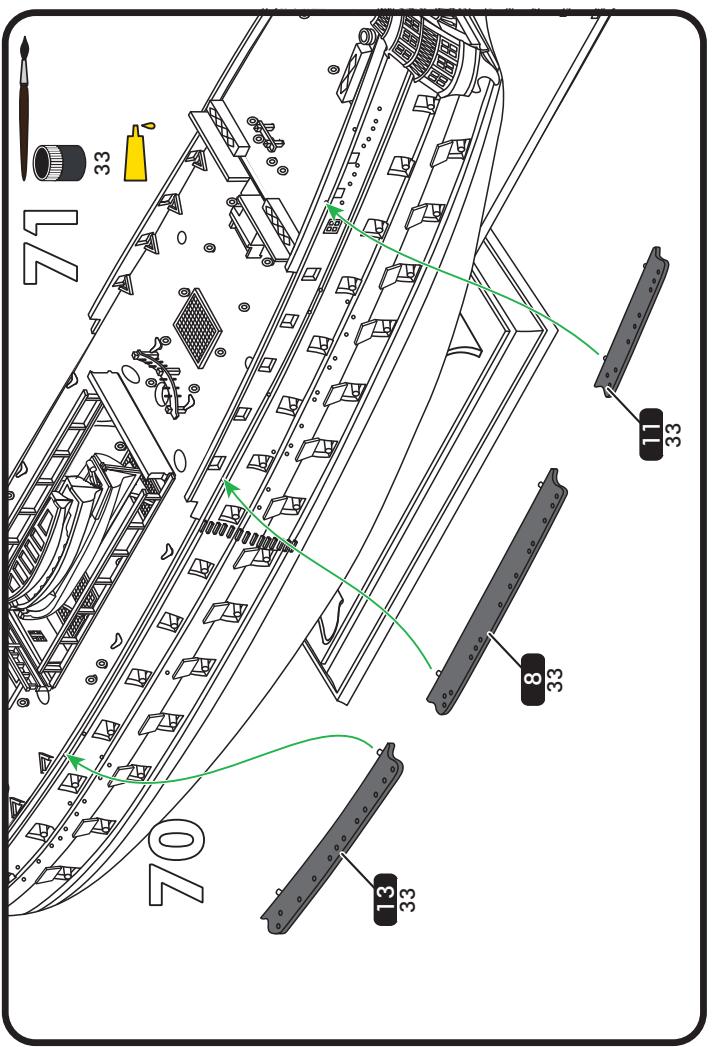
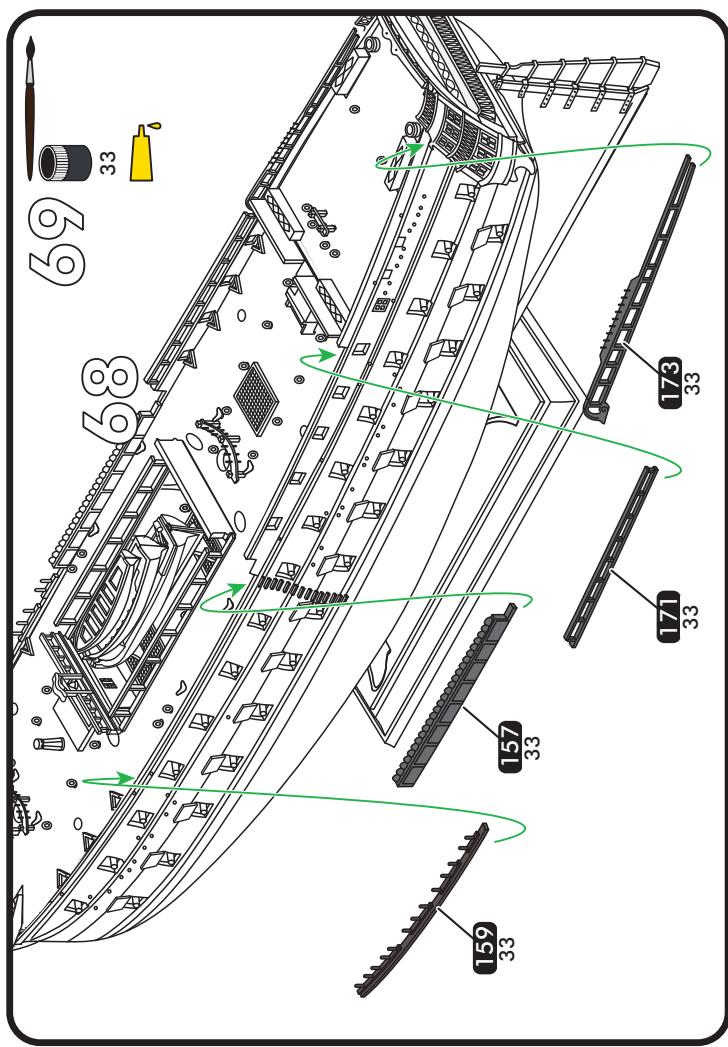


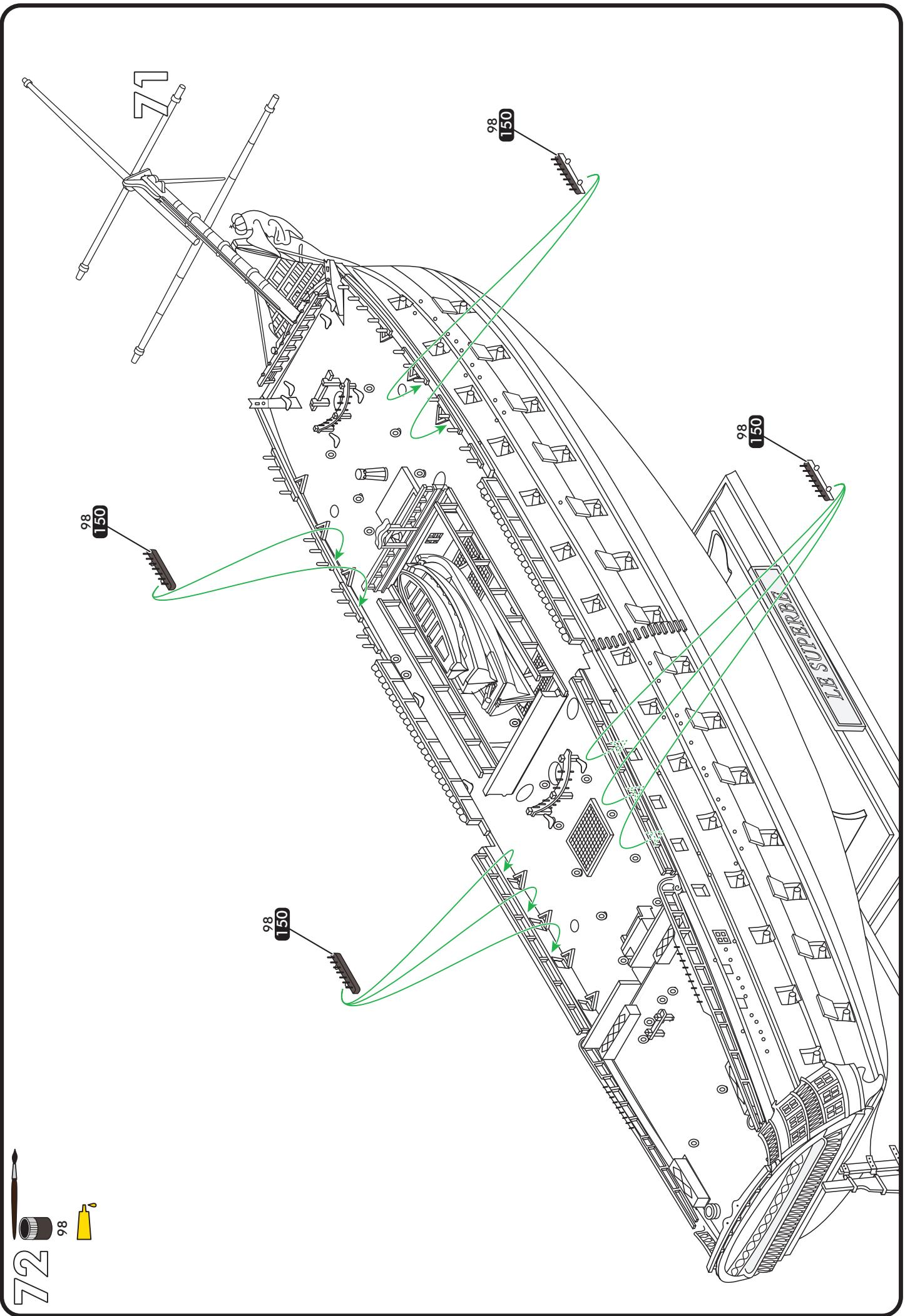




66

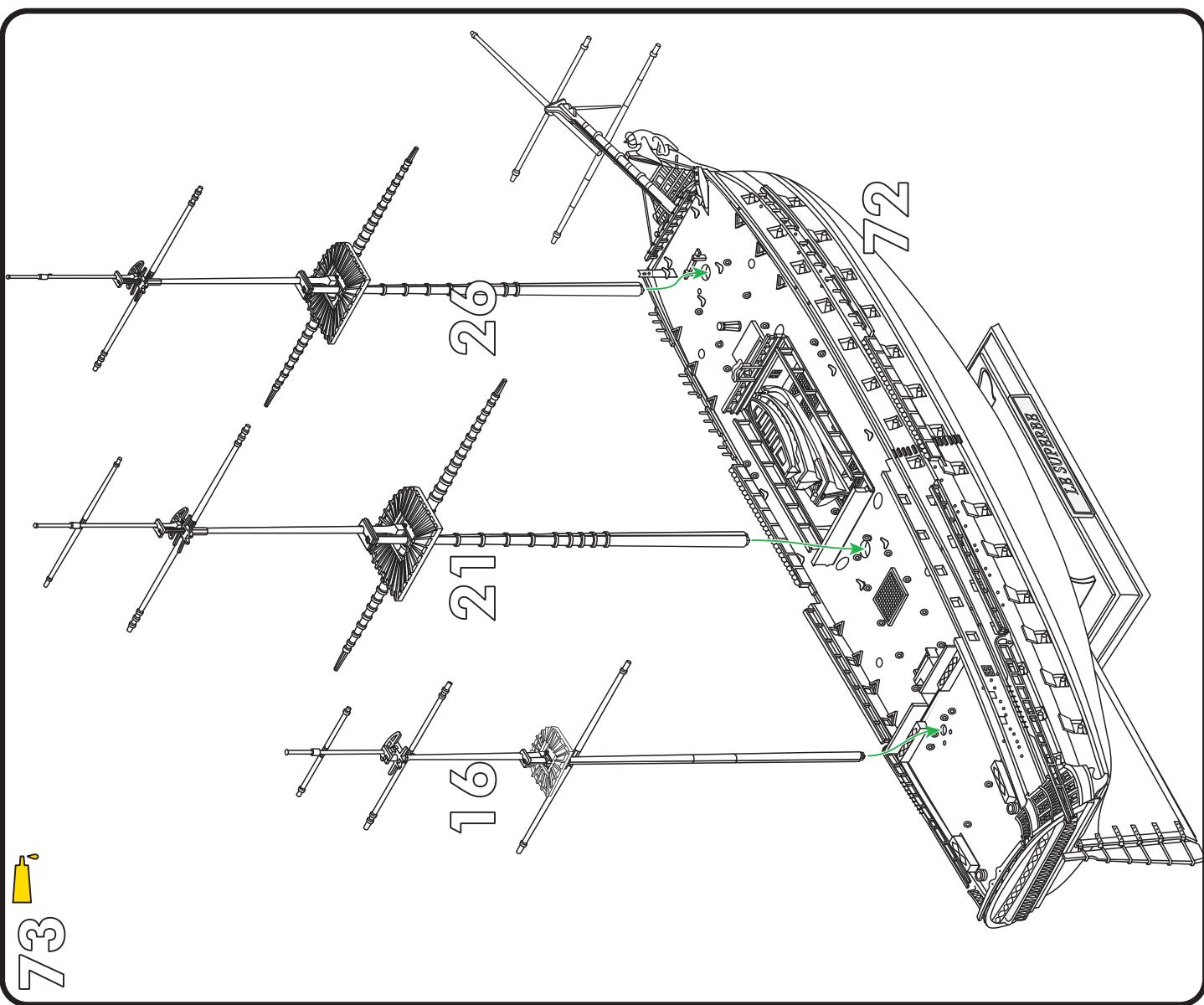
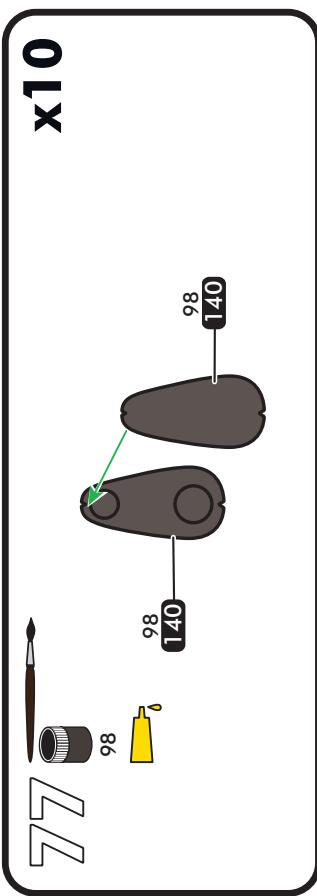
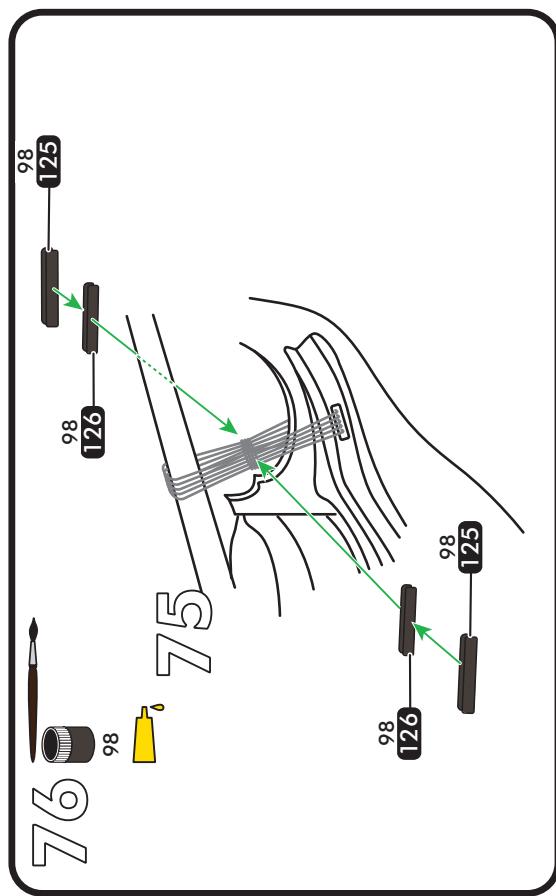
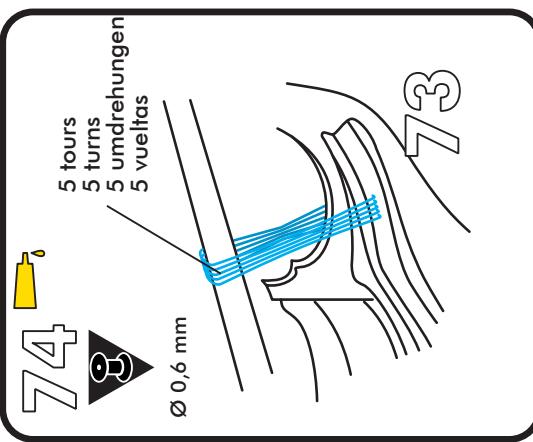
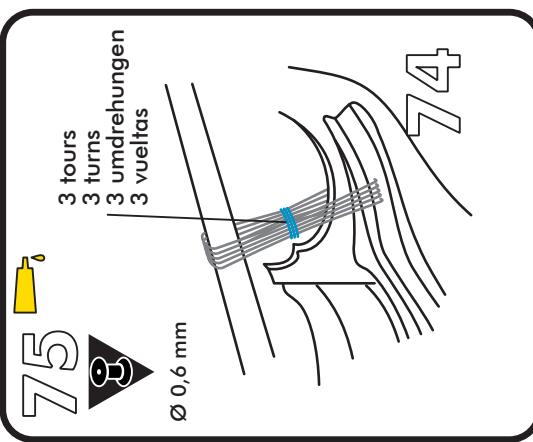
12 16 33 34 63 98  
16 16 16 16 16 16

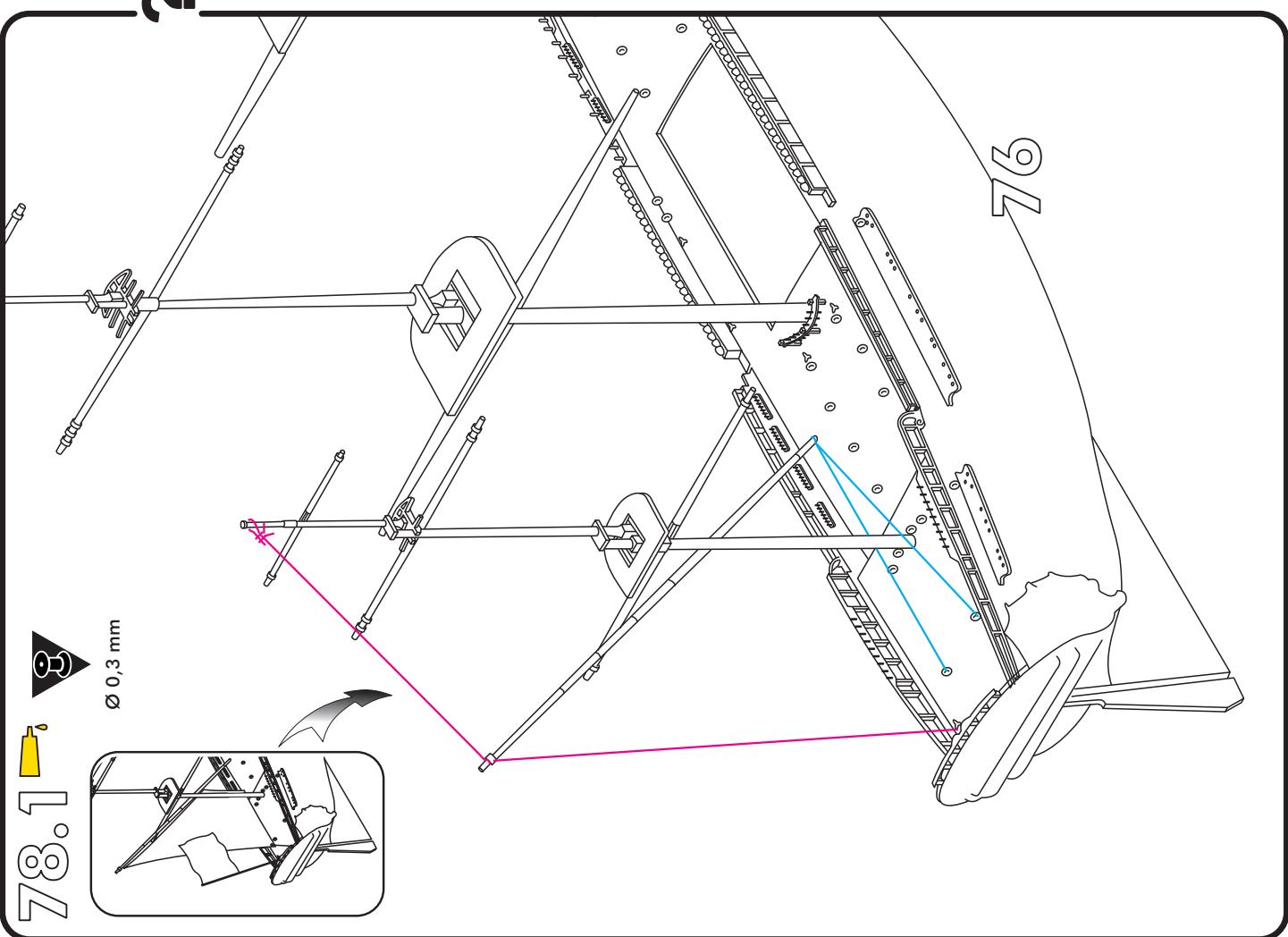
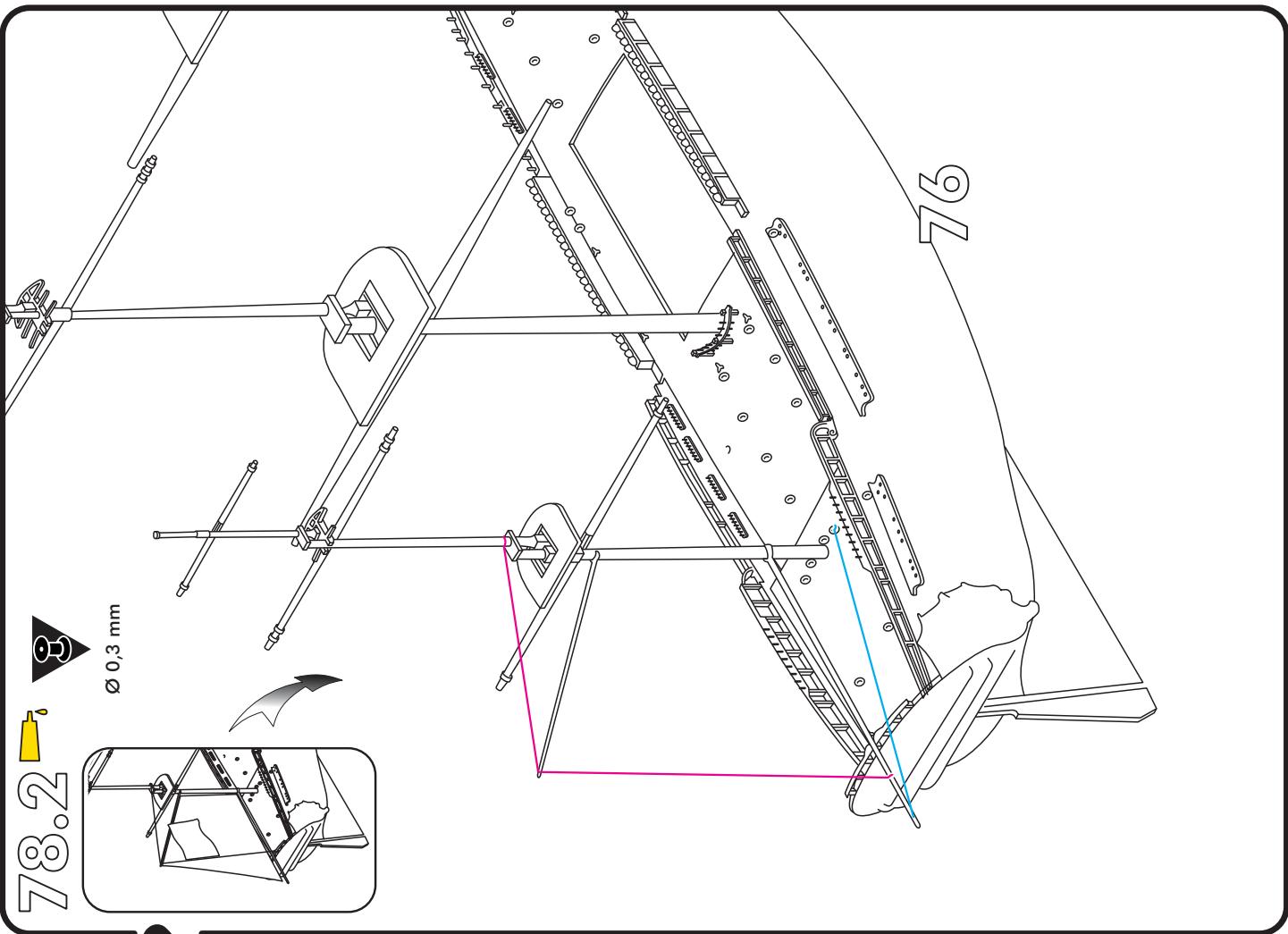


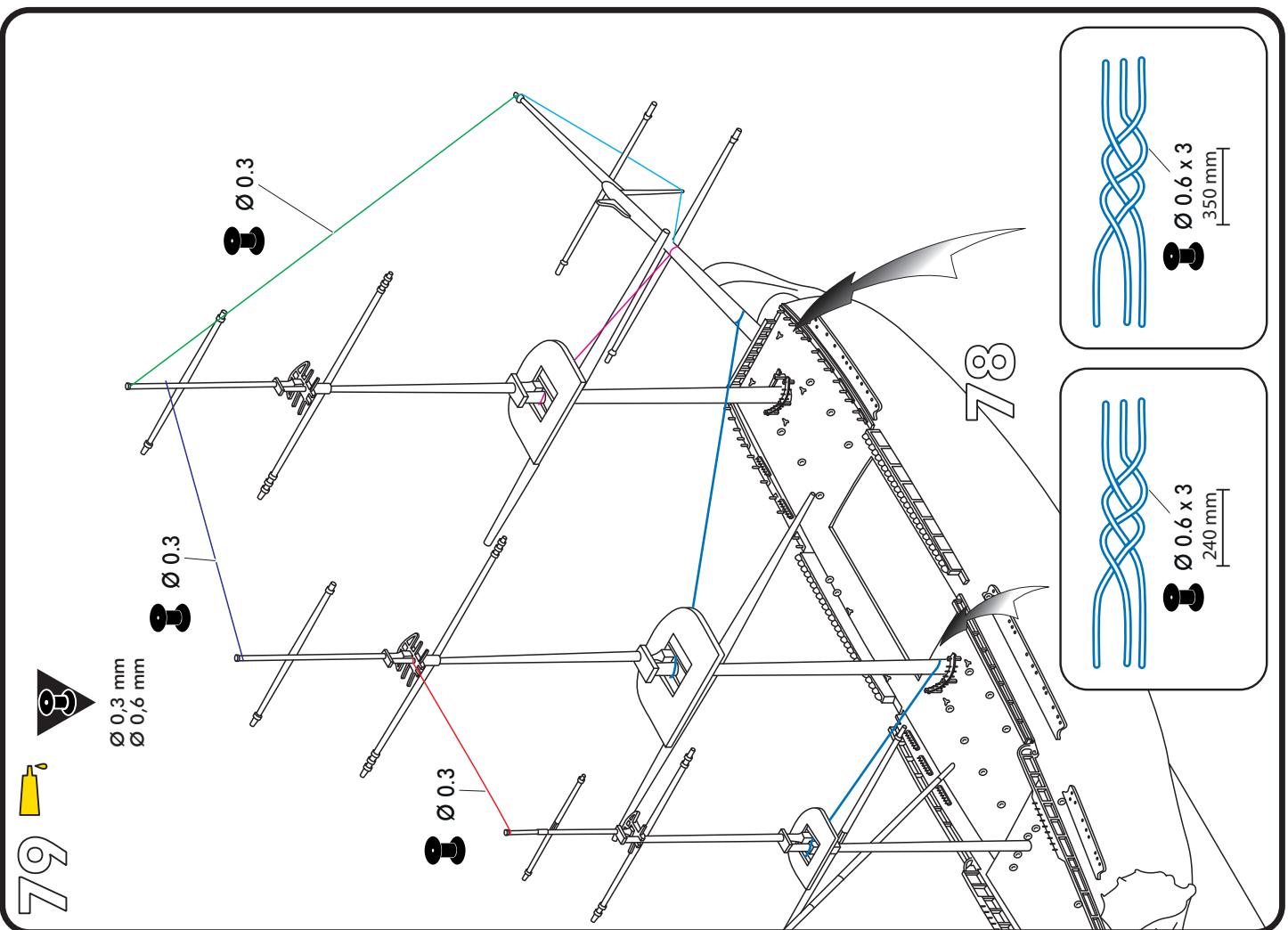
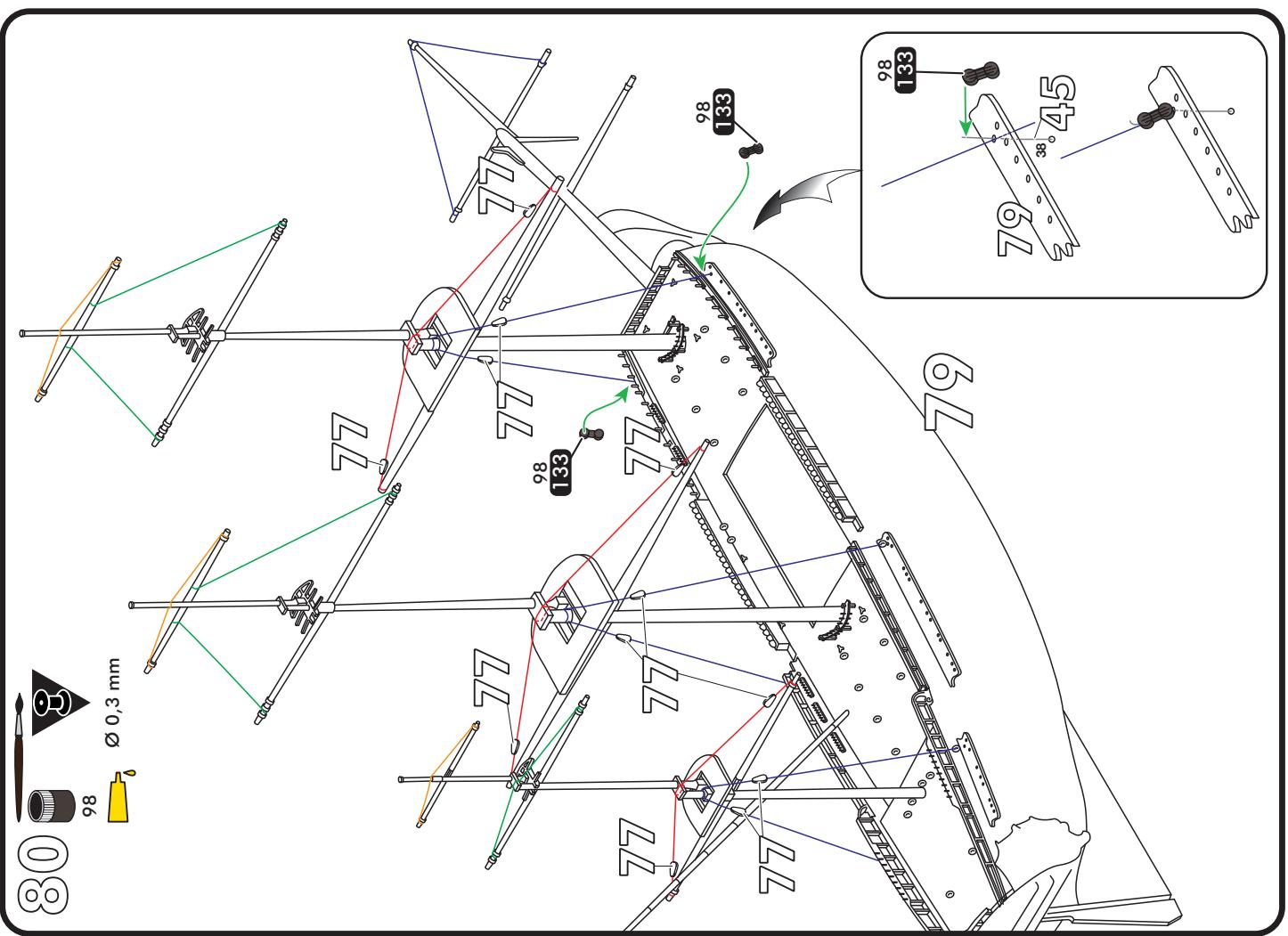


72



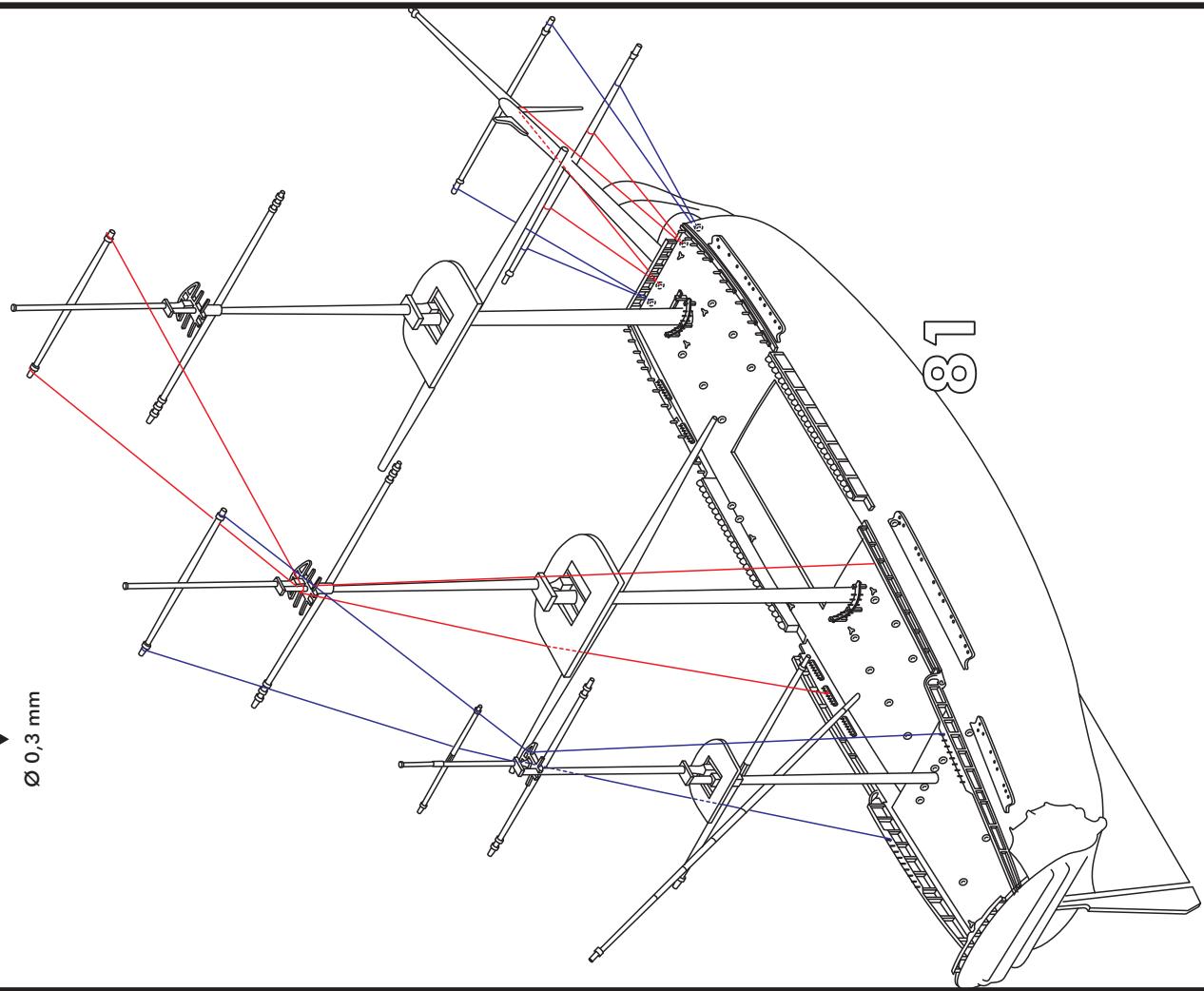






82

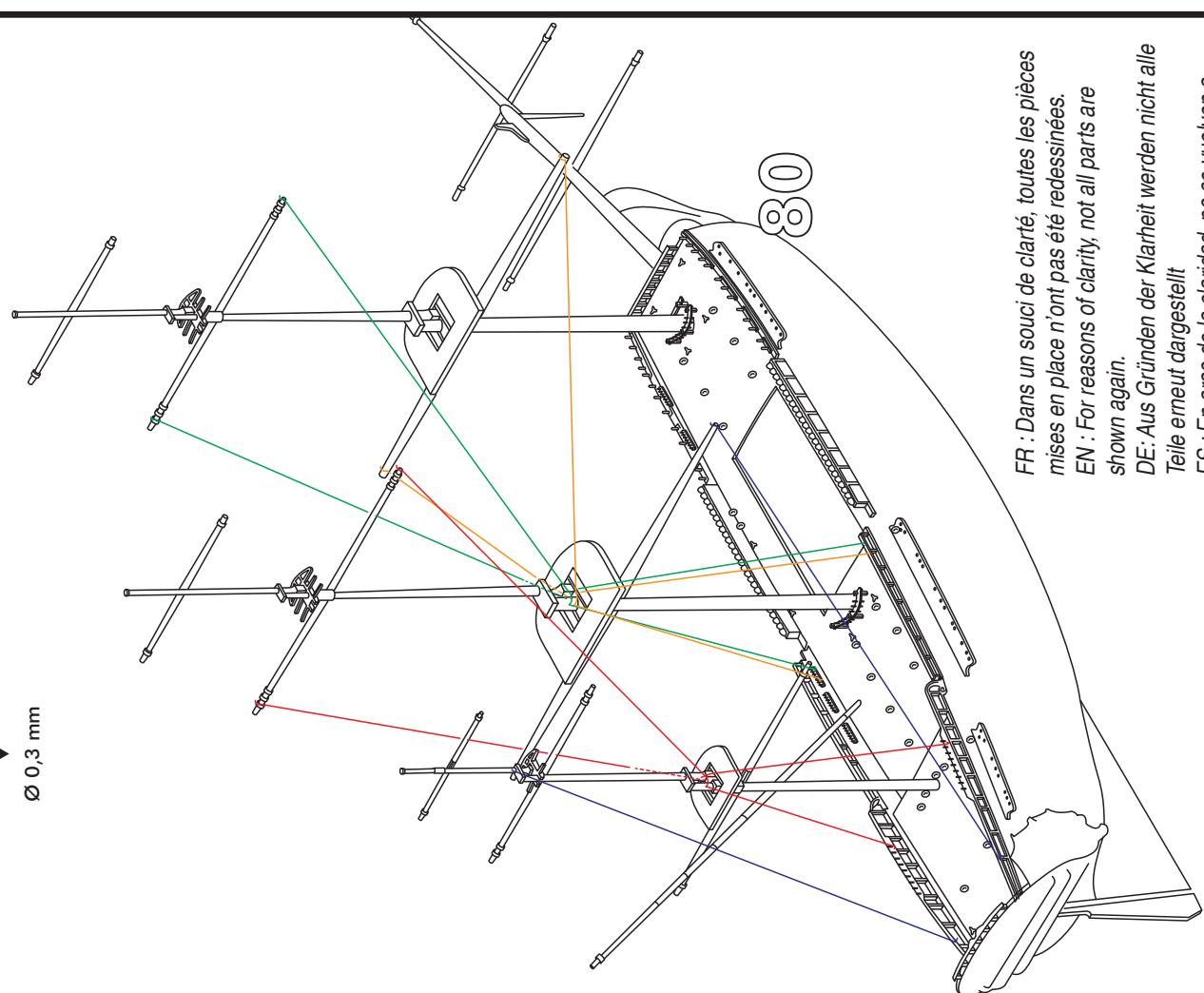
 Ø 0,3 mm



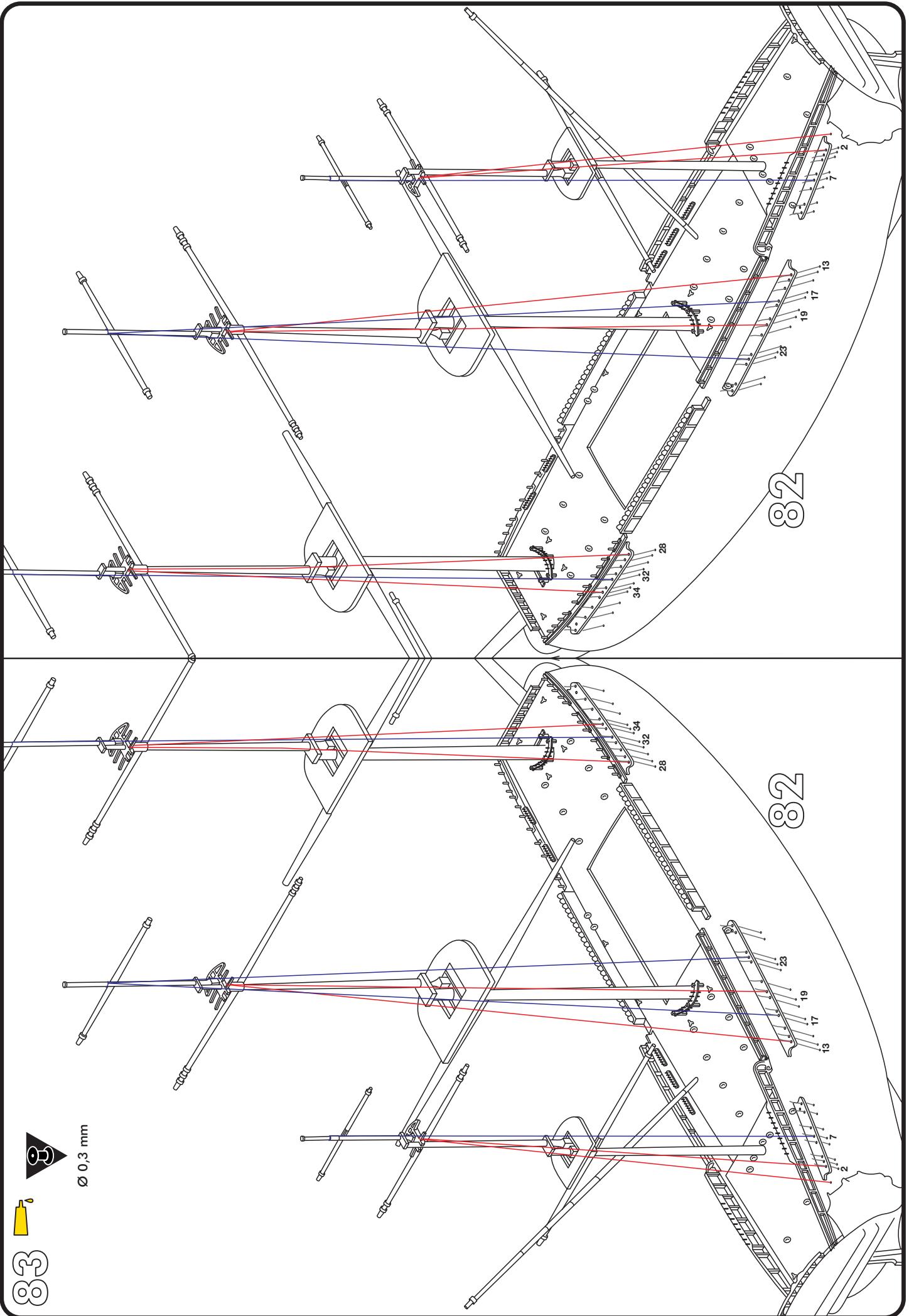
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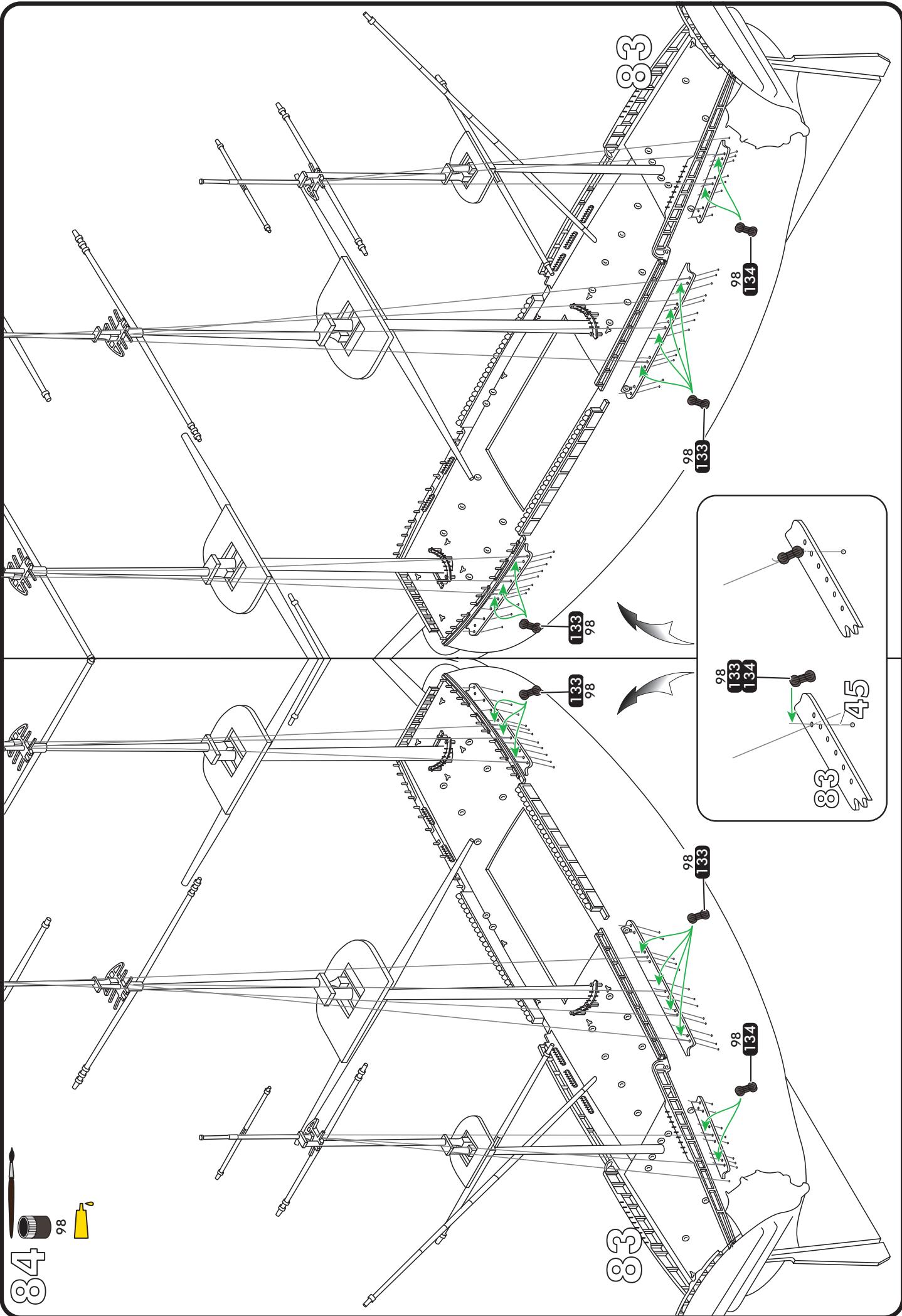
81

 Ø 0,3 mm



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.







## FABRICATION DES HAUBANS

$\varnothing 0,3$  mm

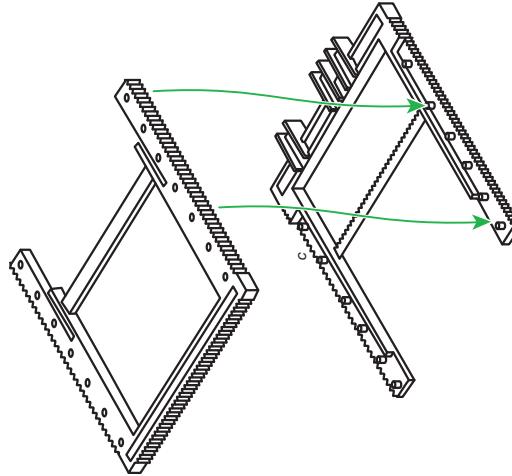
### MACHINE A HAUBANS

La machine fournie dans la boîte permet de fabriquer des haubans symétriques. Le passage des fils est indiqué pour chaque montage.

#### HAUBANS Aa

- 6 fils verticaux ( $\varnothing 0,30$  mm) aux crans: 16, 19, 24 28, 33, 36
- 36 fils horizontaux ( $\varnothing 0,30$  mm) du cran 1 à 36 (tous les crans)

#### 1°) Réglér la machine en position C



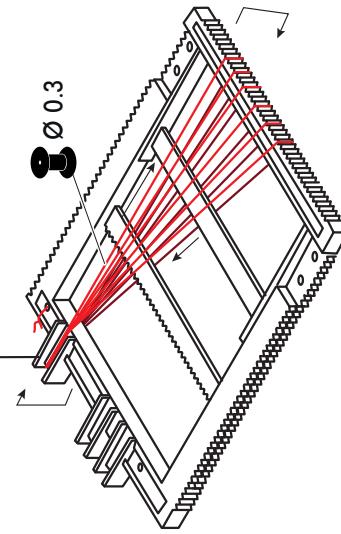
2°) Fils verticaux

Nouer le fil en faisant un boucle au passage Z

Passer la rainure.

Passer le fil aux crans 16, 19, 24 28, 33, 36

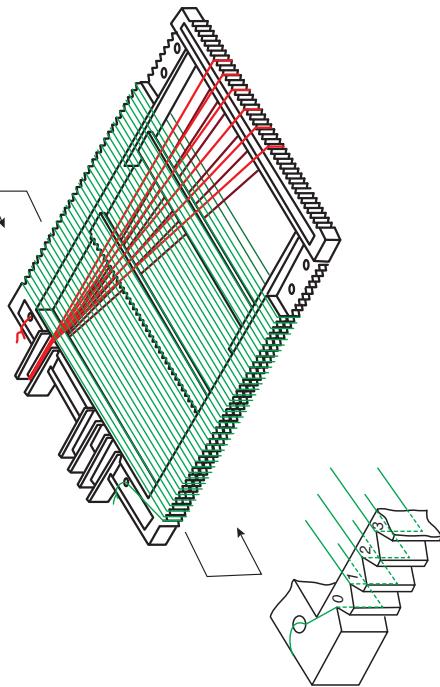
Le fil doit être tendu.



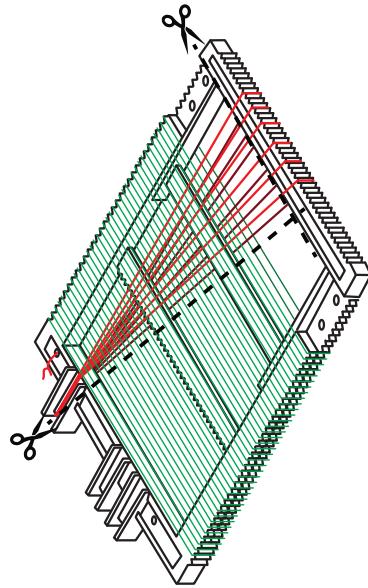
3°) Fils horizontaux

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 36.



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



#### HAUBANS Aa

6 fils  $\varnothing 0,3$  verticaux aux crans: 13, 19, 24, 28, 33, 36  
36 fils horizontaux du cran 1 au cran 36 (tous les crans)

#### HAUBANS Ab

4 fils  $\varnothing 0,6$  verticaux aux crans: 10, 13, 16, 19  
26 fils horizontaux du cran 1 au cran 26 (tous les crans)

#### HAUBANS Ba

9 fils  $\varnothing 0,3$  verticaux aux crans: 5, 7, 14, 17, 22, 29, 34, 37, 41  
42 fils horizontaux du cran 1 au cran 42 (tous les crans)

#### HAUBANS Bb

6 fils  $\varnothing 0,3$  verticaux aux crans: 8, 10, 12, 14, 17, 20  
40 fils horizontaux du cran 1 au cran 40 (tous les crans)

#### HAUBANS Ca

8 fils  $\varnothing 0,9$  verticaux aux crans: 10, 15, 18, 23, 26, 30, 32, 36  
40 fils horizontaux du cran 1 au cran 40 (tous les crans)

#### HAUBANS Cb

5 fils  $\varnothing 0,3$  verticaux aux crans: 10, 13, 16, 19, 22  
36 fils horizontaux du cran 1 au cran 36 (tous les crans)

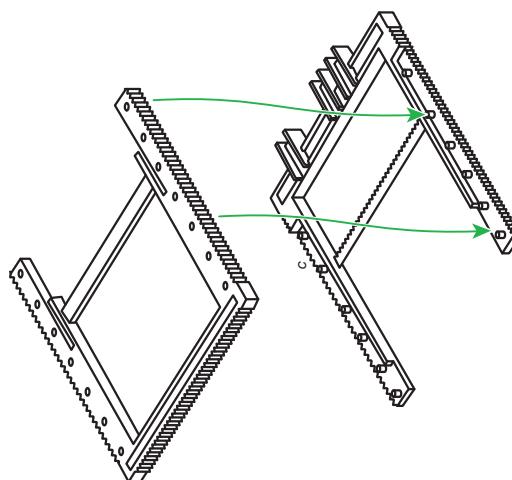
$\varnothing 0,3$  mm**SHROUD MACHINE**

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

**SHROUDS Aa**

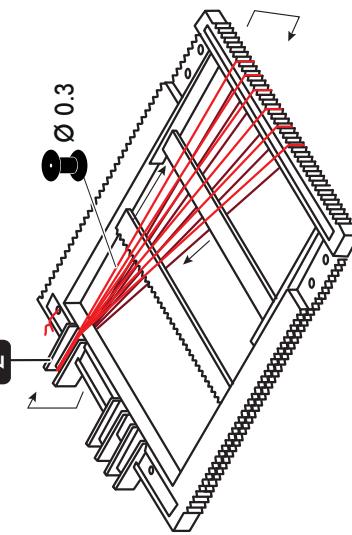
- 6 vertical wires ( $\varnothing 0,30$  mm) at the notches:  
16, 19, 24, 28, 33, 36
- 36 horizontal wires ( $\varnothing 0,30$  mm) from notch 1 to 36  
(all notches)

## 1°) Set the machine to position C



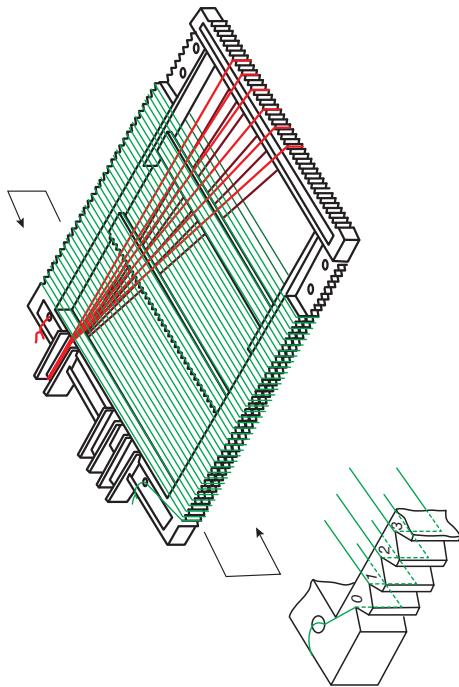
## 2°) Vertical wires

Tie the wire by making a loop at the Z passage Pass the groove. Pass the thread through the notches 16, 19, 24 28, 33, 36  
The wire must be taut.

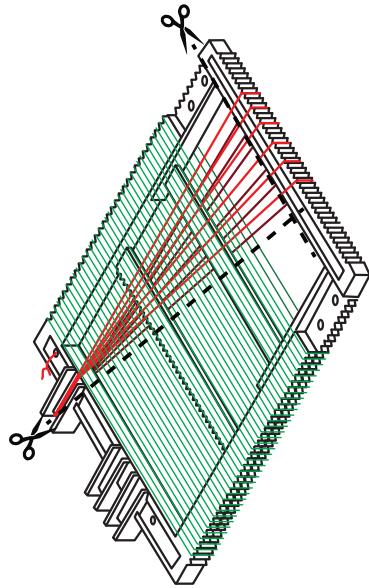


## 3°) Horizontal wires

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 36.



- 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**

6 wires Ø 0,3 vertical at notches: 13, 19, 24, 28, 33, 36  
36 horizontal wires from notch 1 to notch 36 (all notches)

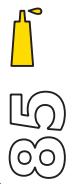
**Shrouds Ab**  
4 wires Ø 0,6 vertical at notches: 10, 13, 16, 19  
26 horizontal wires from notch 1 to notch 26 (all notches)

**Shrouds Ba**  
9 wires Ø 0,3 vertical at notches: 5, 7, 14, 17, 22, 29, 34, 37, 41  
42 horizontal wires from notch 1 to notch 42 (all notches)

**Shrouds Bb**  
6 wires Ø 0,3 vertical at notches: 8, 10, 12, 14, 17, 20  
40 horizontal wires from notch 1 to notch 40 (all notches)

**Shrouds Ca**  
8 wires Ø 0,9 vertical at notches: 10, 15, 18, 23, 26, 30, 32, 36  
40 horizontal wires from notch 1 to notch 40 (all notches)

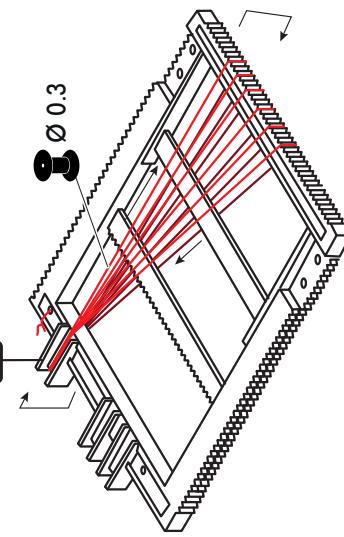
**Shrouds Cb**  
5 wires Ø 0,3 vertical at notches: 10, 13, 16, 19, 22  
36 horizontal wires from notch 1 to notch 36 (all notches)



## 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 16, 19, 24 28, 33, 36 führen.  
Der Faden muss gespannt sein.

**Z**



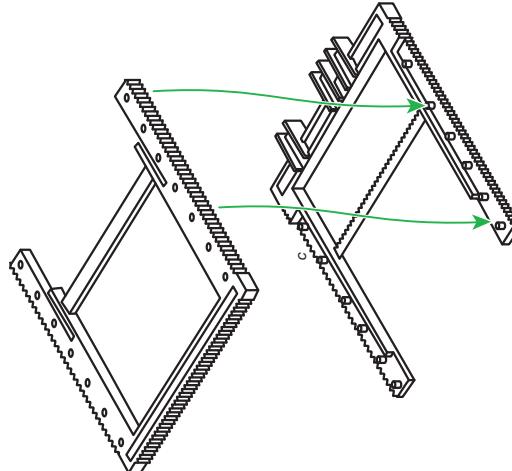
## WANTENMASCHINE

Die in der Verpackung mitgelieferte Maschine ermöglicht die Herstellung von symmetrischen Wanten. Die Seilführung ist für jede Baugruppe angegeben.

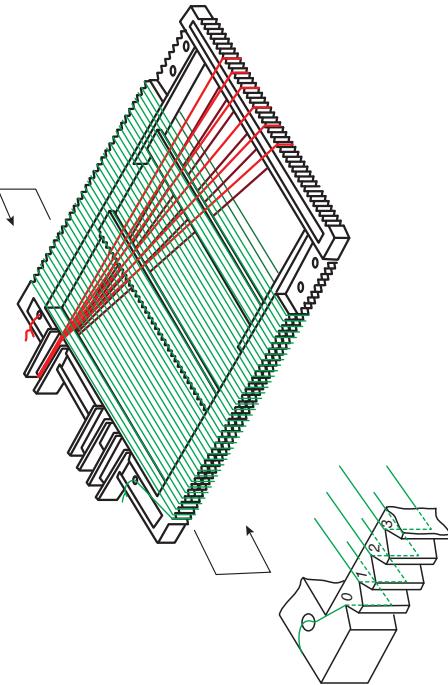
### WANTEN Aa

- 6 vertikale Seile ( $\varnothing 0,30$  mm) an den Raststellen: 16, 19, 24, 28, 33, 36
- 36 horizontale Seile ( $\varnothing 0,30$  mm) von Raste 1 bis 36 (beide Kerben)

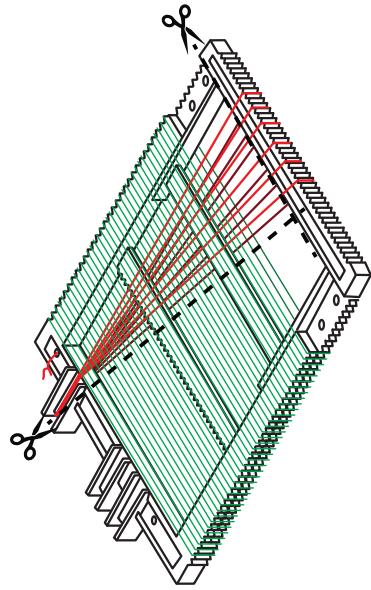
### 1°) Stellen Sie die Maschine auf Position C



- 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 36.



- 4°) Besteiche 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

- 6 Fäden  $\varnothing 0,3$  vertikal in den Rasten: 13, 19, 24, 28, 33, 36  
36 horizontale Fäden von Raste 1 bis Raste 36 (alle Räste)

### WANTEN Ab

- 4 Fäden  $\varnothing 0,6$  vertikal in den Rasten: 10, 13, 16, 19  
26 horizontale Fäden von Raste 1 bis Raste 26 (alle Räste)

### WANTEN Bb

- 9 Fäden  $\varnothing 0,3$  vertikal in den Rasten: 5, 7, 14, 17, 22, 29, 34, 37, 41  
42 horizontale Fäden von Raste 1 bis Raste 42 (alle Räste)

### WANTEN Cb

- 6 Fäden  $\varnothing 0,3$  vertikal bei den Rasten: 8, 10, 12, 14, 17, 20  
40 horizontale Fäden von Raste 1 bis Raste 40 (alle Räste)

### WANTEN Ca

- 8 Fäden  $\varnothing 0,9$  vertikal in den Rasten: 10, 15, 18, 23, 26, 30, 32, 36  
40 horizontale Fäden von Raste 1 bis Raste 40 (alle Räste)

### WANTEN Cb

- 5 Fäden  $\varnothing 0,3$  vertikal in den Rasten: 10, 13, 16, 19, 22  
36 horizontale Fäden von Raste 1 bis Raste 36 (alle Räste)

85

## FABRICACIÓN DE LOS OBENQUES

 Ø 0,3 mm

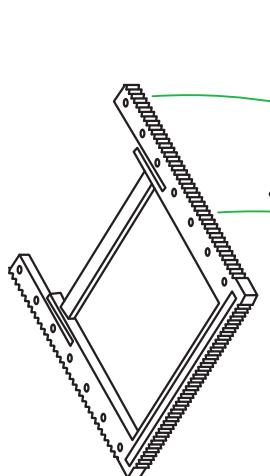
### MÁQUINA DE OBENQUES

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

#### OBENQUES Aa

- 6 hilos verticales ( $\varnothing 0,30$  mm) en las siguientes muescas: 16, 19, 24 28, 33, 36
- 36 hilos horizontales ( $\varnothing 0,30$  mm) de la muesca 1 a la 36 (todas las muescas)

#### 1º) Poner la máquina en la posición C



#### 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 36.

#### OBENQUES Aa

6 hilos  $\varnothing 0,3$  vertical en las muescas: 13, 19, 24, 28, 33, 36  
36 vertical en las muescas 1 hasta la muesca 36 (todas las muescas)

#### OBENQUES Ab

4 hilos  $\varnothing 0,6$  vertical en las muescas: 10, 13, 16, 19  
26 vertical en las muescas 1 hasta la muesca 26 (todas las muescas)

#### OBENQUES Ba

9 hilos  $\varnothing 0,3$  vertical en las muescas: 5, 7, 14, 17, 22, 29, 34, 37, 41  
42 hilos horizontales desde la muesca 1 hasta la 42 (todas las muescas)

#### OBENQUES Bb

6 hilos  $\varnothing 0,3$  vertical en las muescas: 8, 10, 12, 14, 17, 20  
40 hilos horizontales desde la muesca 1 hasta la 40 (todas las muescas)

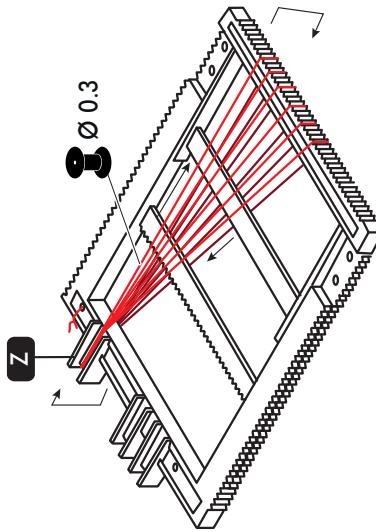
#### OBENQUES Ca

8 hilos  $\varnothing 0,9$  vertical en las muescas: 10, 15, 18, 23, 26, 30, 32, 36  
40 hilos horizontales desde la muesca 1 hasta la 40 (todas las muescas)

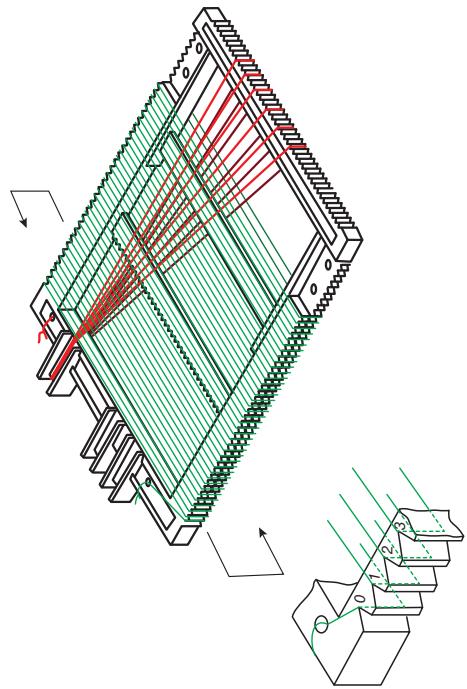
#### OBENQUES Cb

5 hilos  $\varnothing 0,3$  vertical en las muescas: 10, 13, 16, 19, 22  
36 hilos horizontales desde la muesca 1 hasta la muesca 36 (todas las muescas)

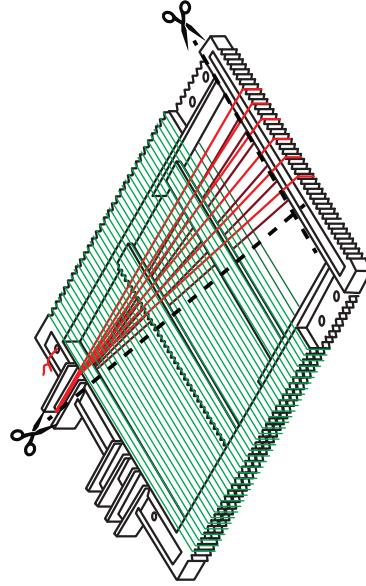
2º) Cables verticales  
Ate el cable en un bucle en el paso Z Pase la ranura.  
Pase el hilo por las muescas 16, 19, 24 28, 33, 36  
El hilo debe estar tenso.

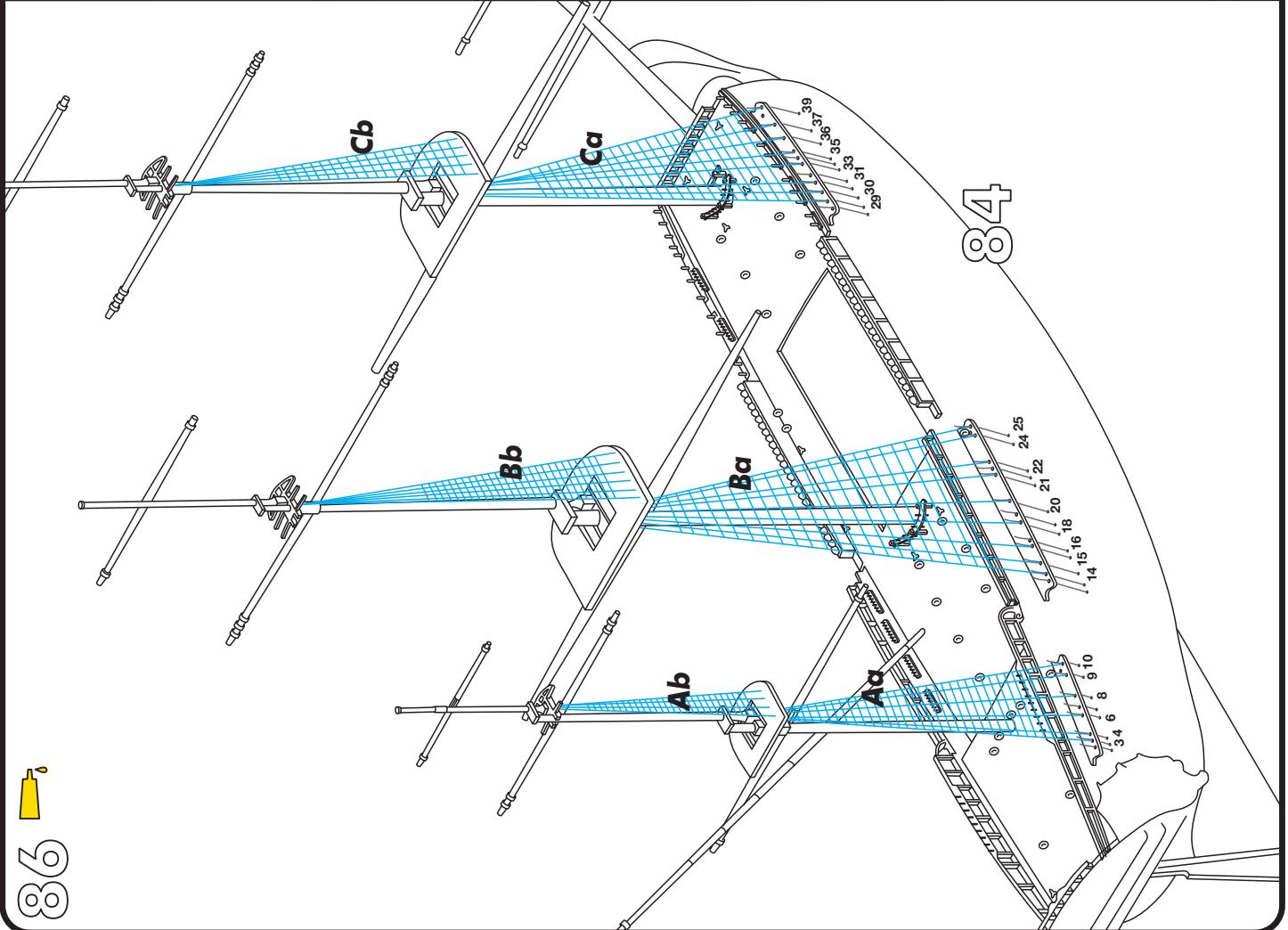
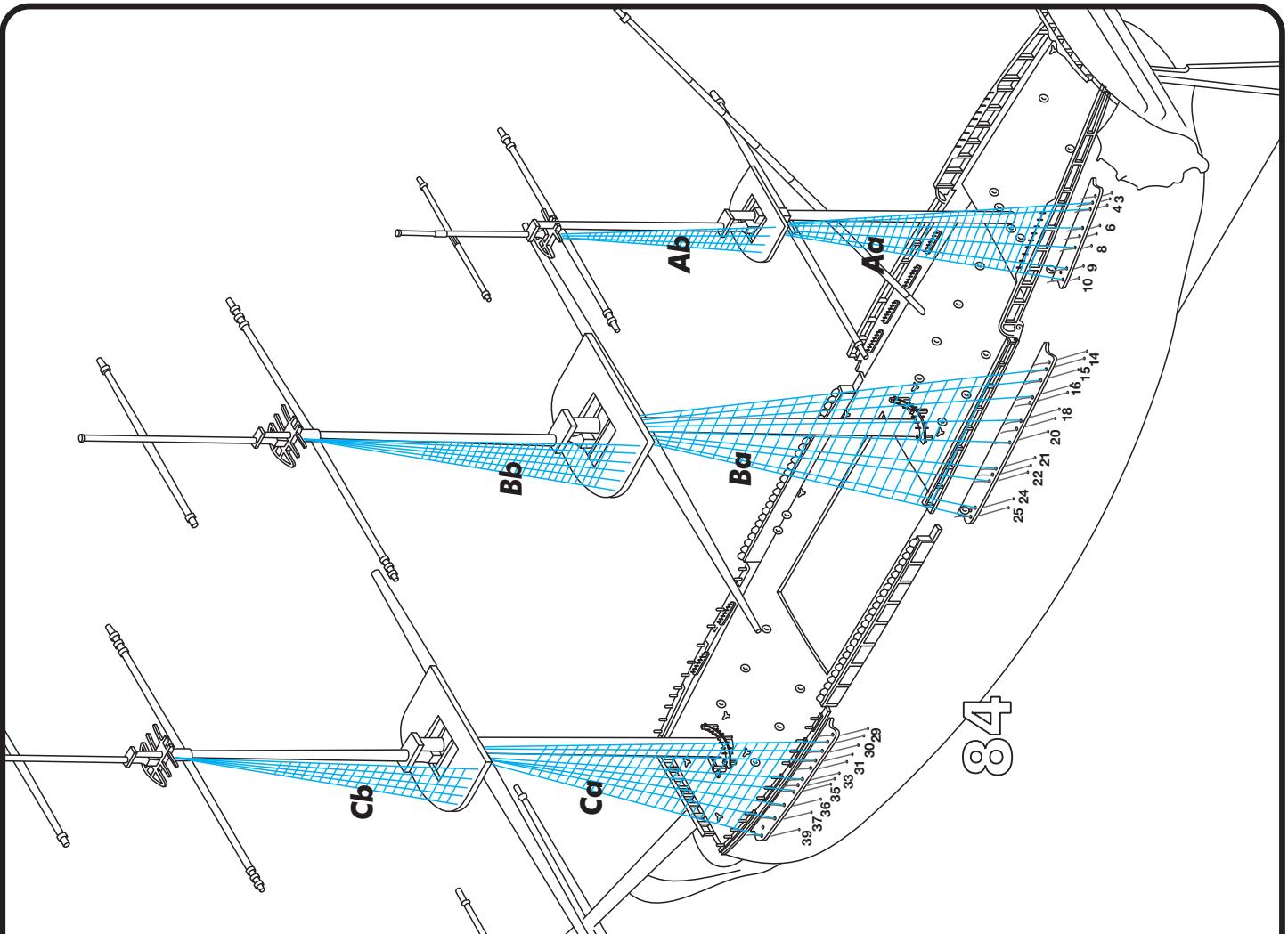


4º) Cables horizontales  
Anudar el hilo en un bucle en el paso Z, pasarlo a la muesca 0 (rama izquierda) y seguirlo en la muesca 1 de la rama opuesta (rama derecha)  
volver a la muesca 1 de la rama izquierda, seguir hasta la muesca 2 de la rama opuesta y así hasta la muesca 36.

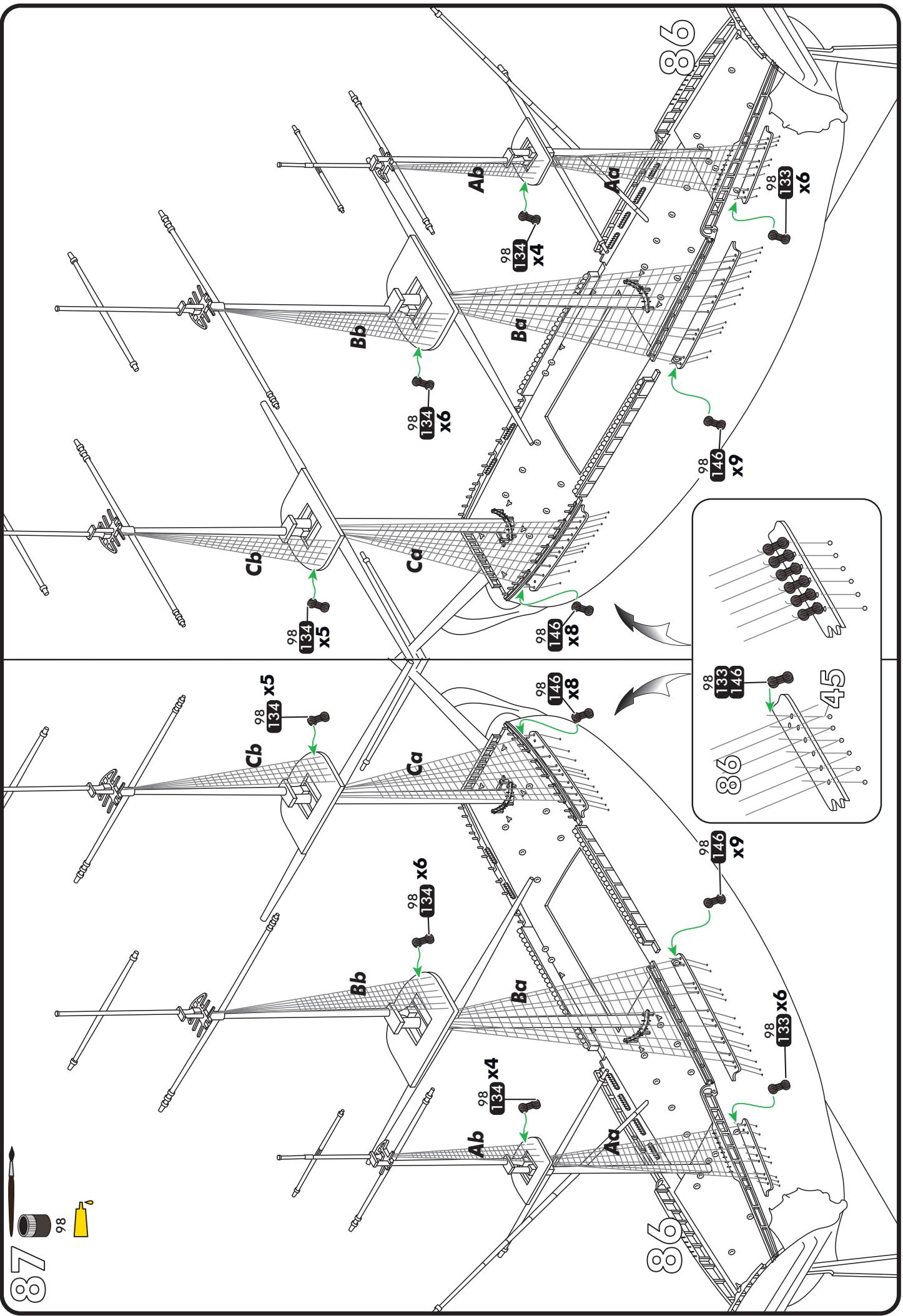


4º) Con un pincel, cubre todos los cables con cola vinílica ligeramente diluida en agua.  
Después de que se haya secado por completo, corte los cables horizontales a ras de los extremos verticales, y luego corte en la parte inferior como se muestra.

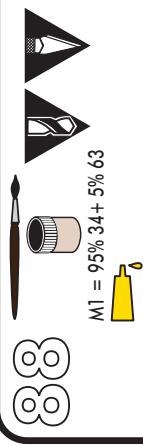
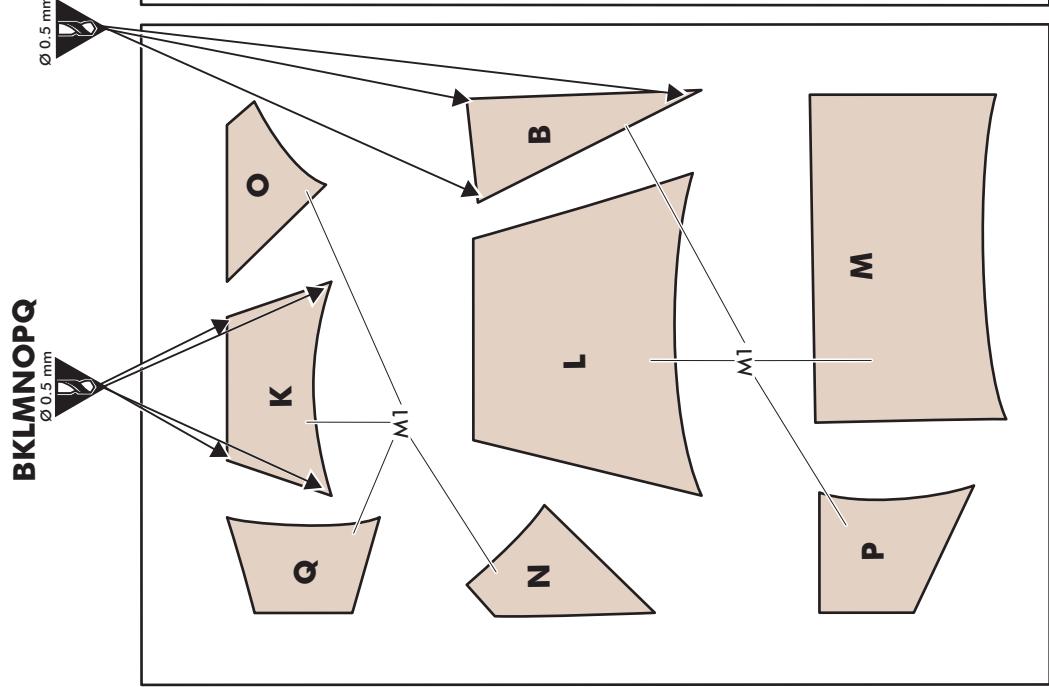
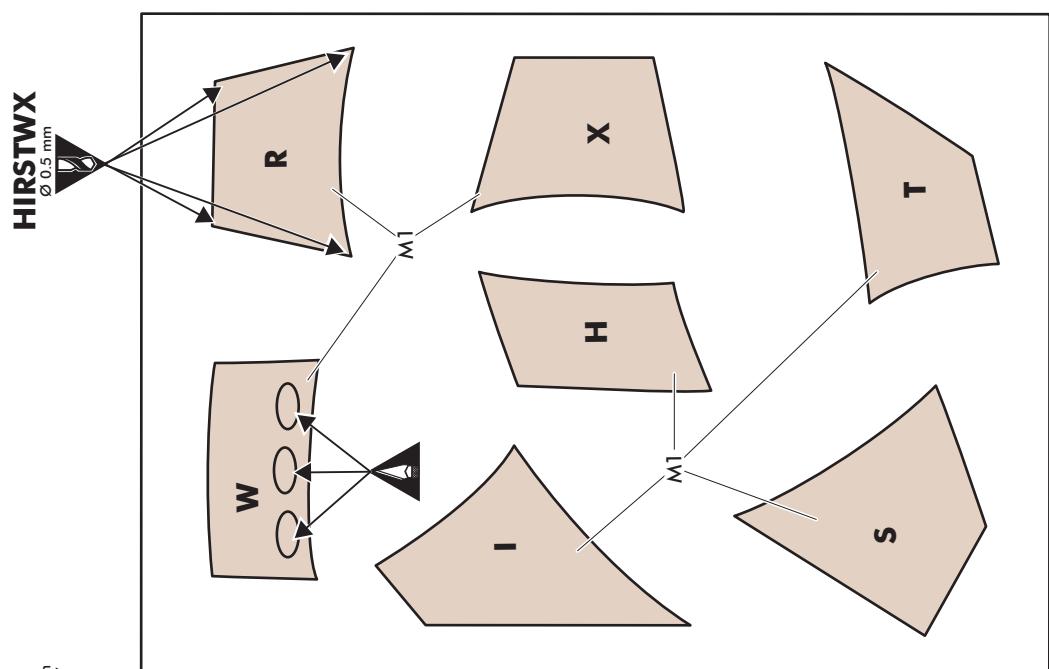
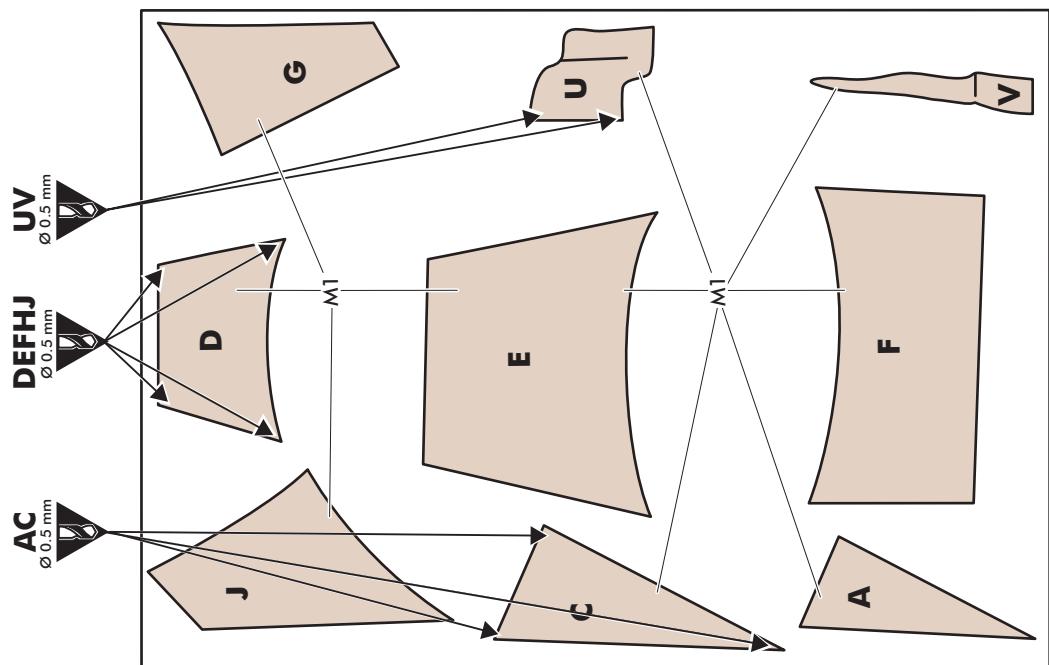


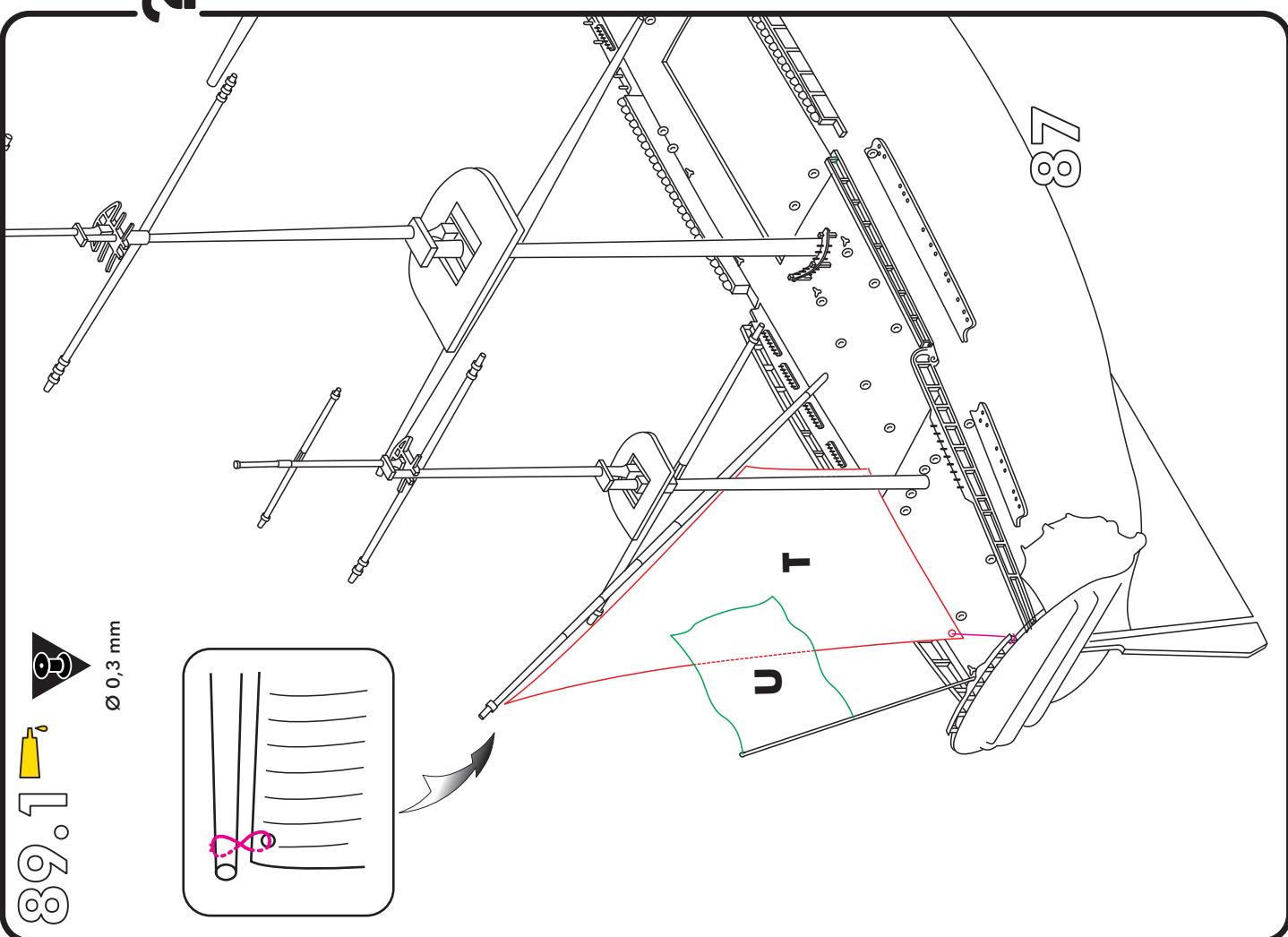
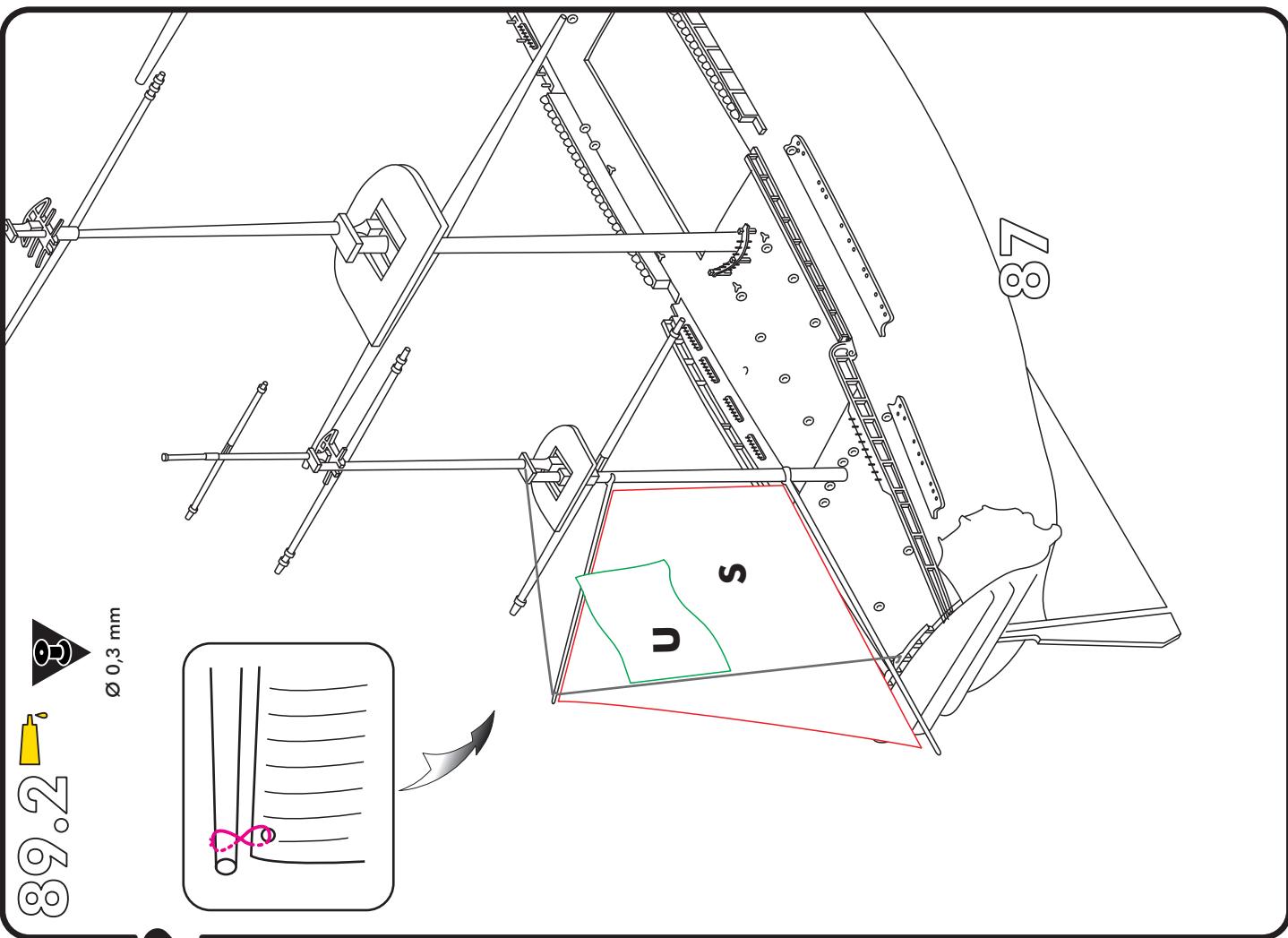


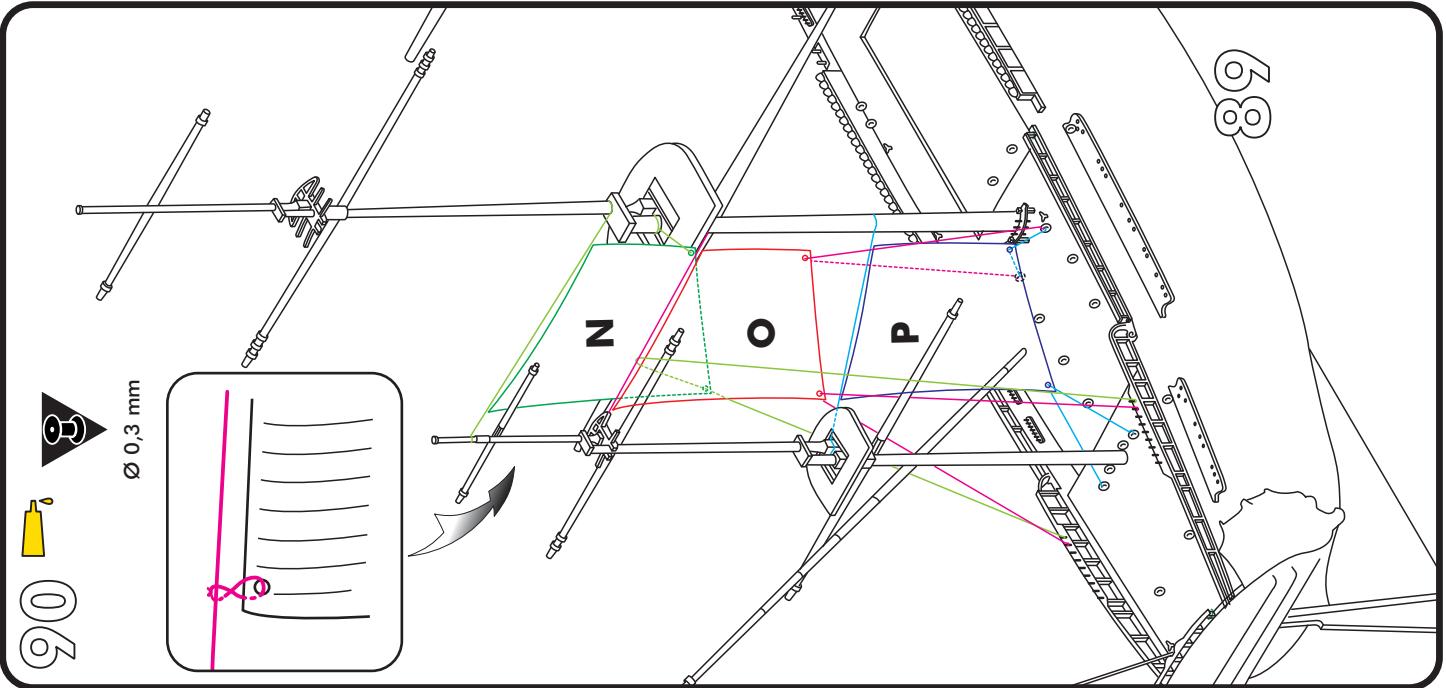
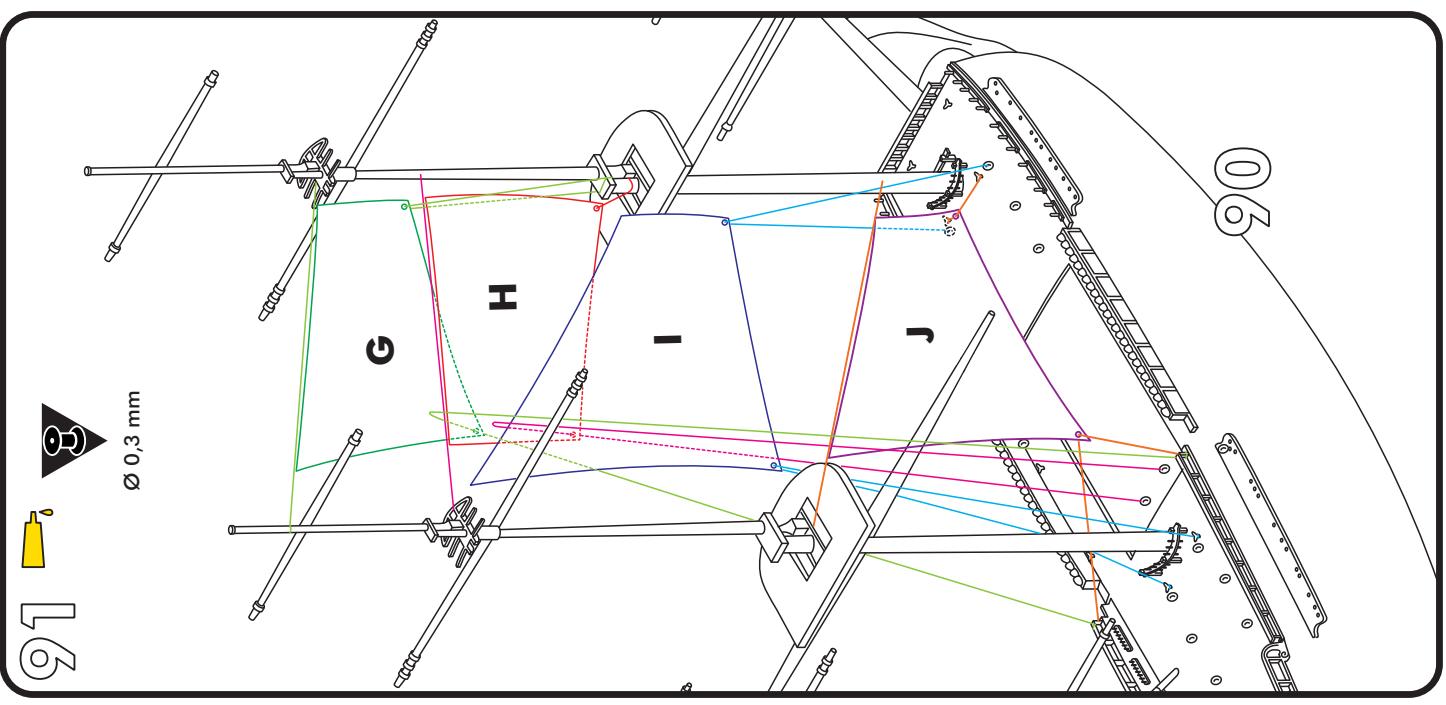
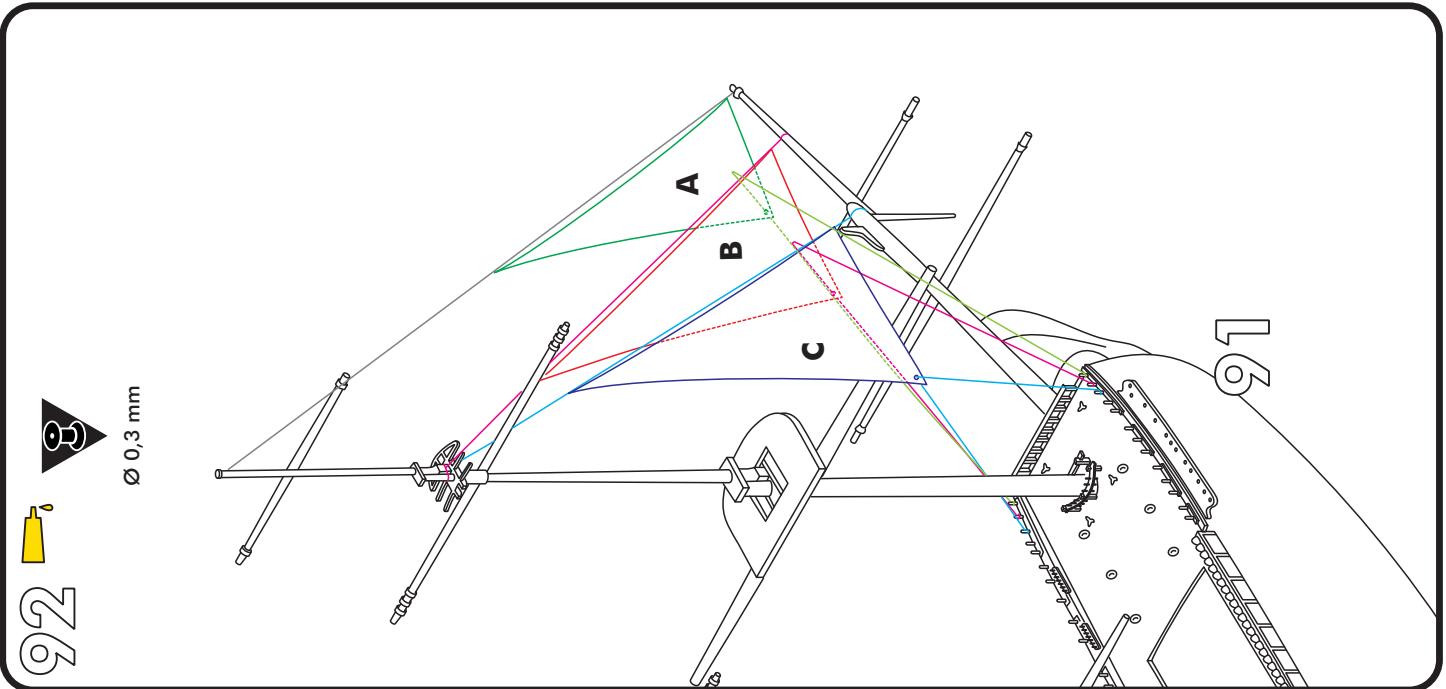
86

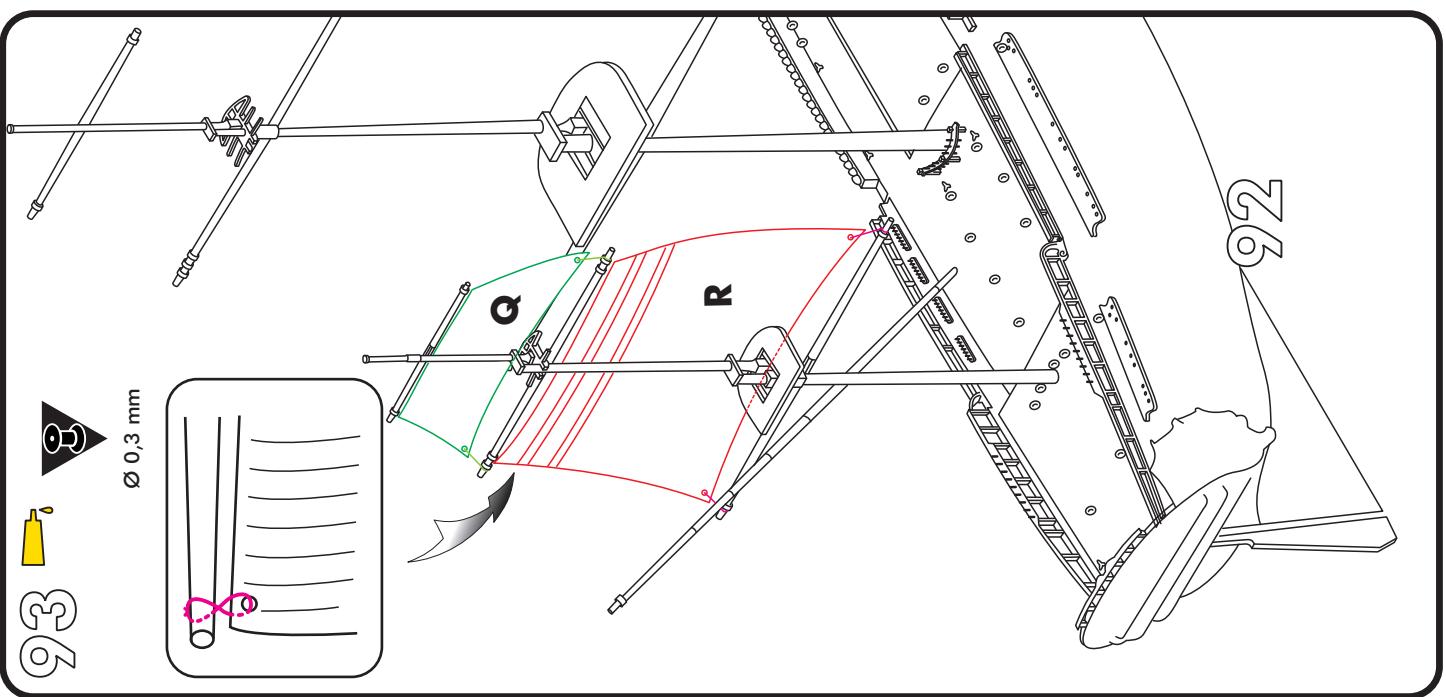
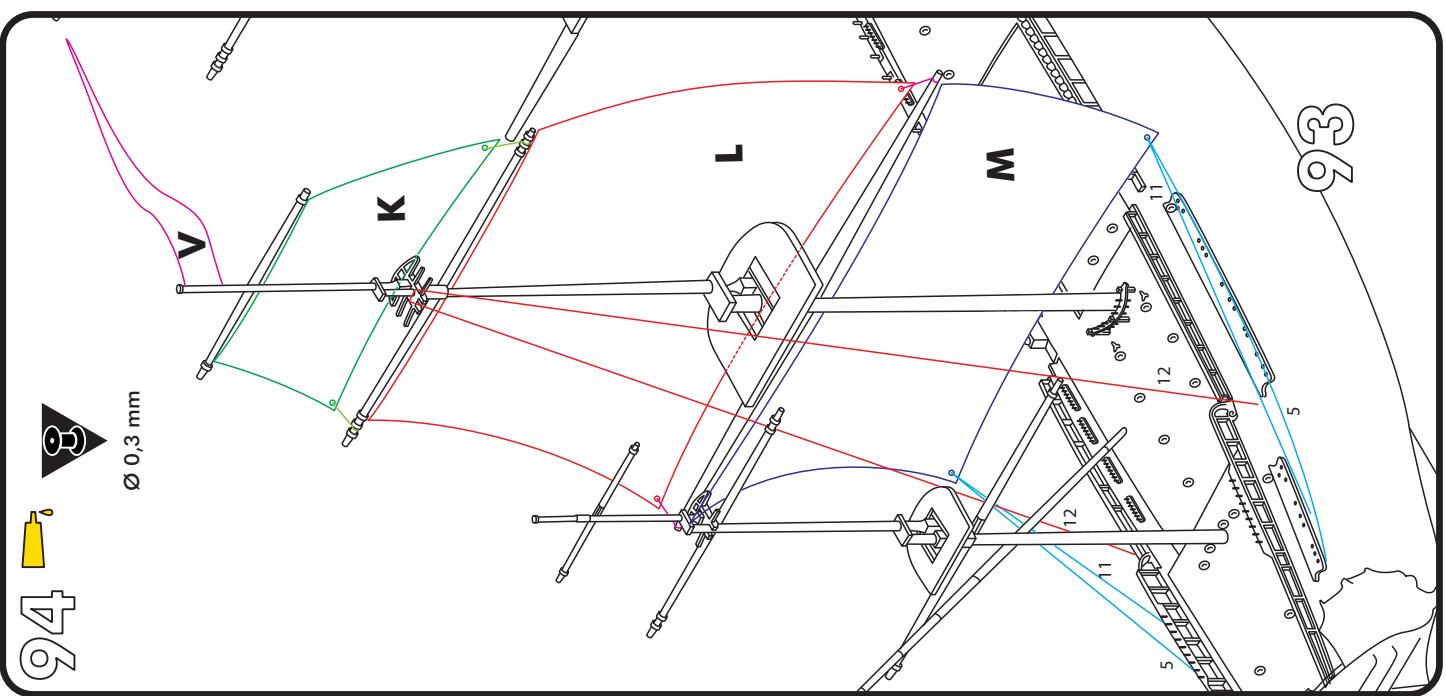
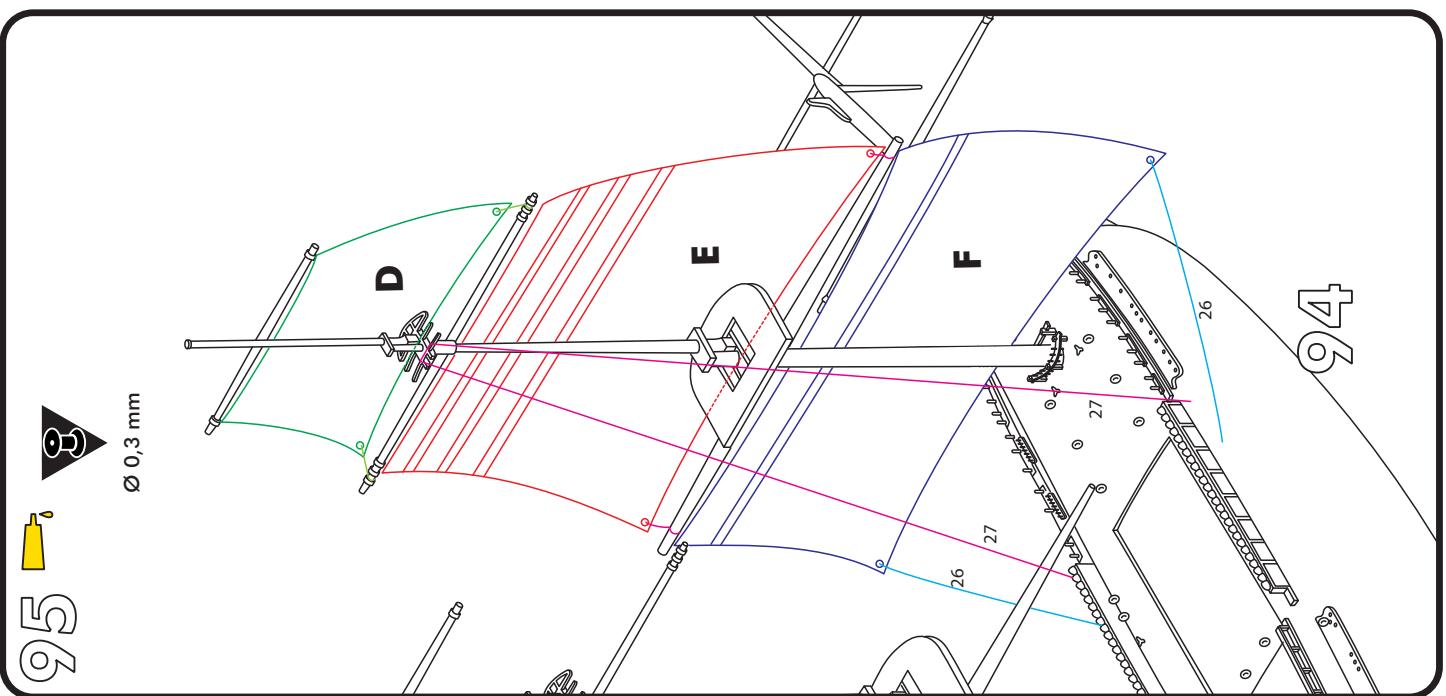


87

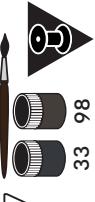


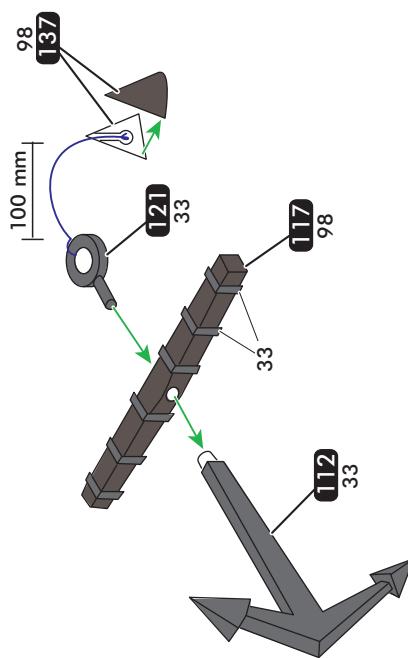






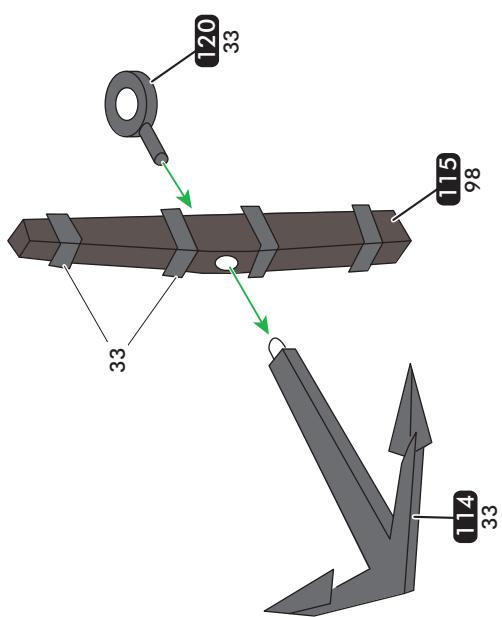
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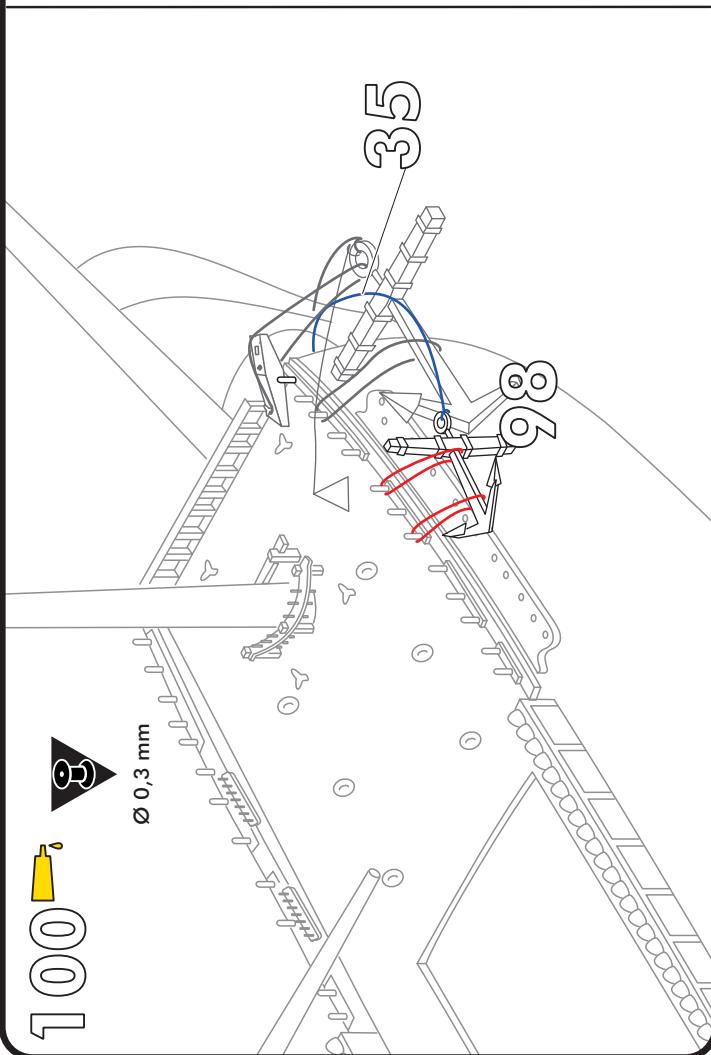
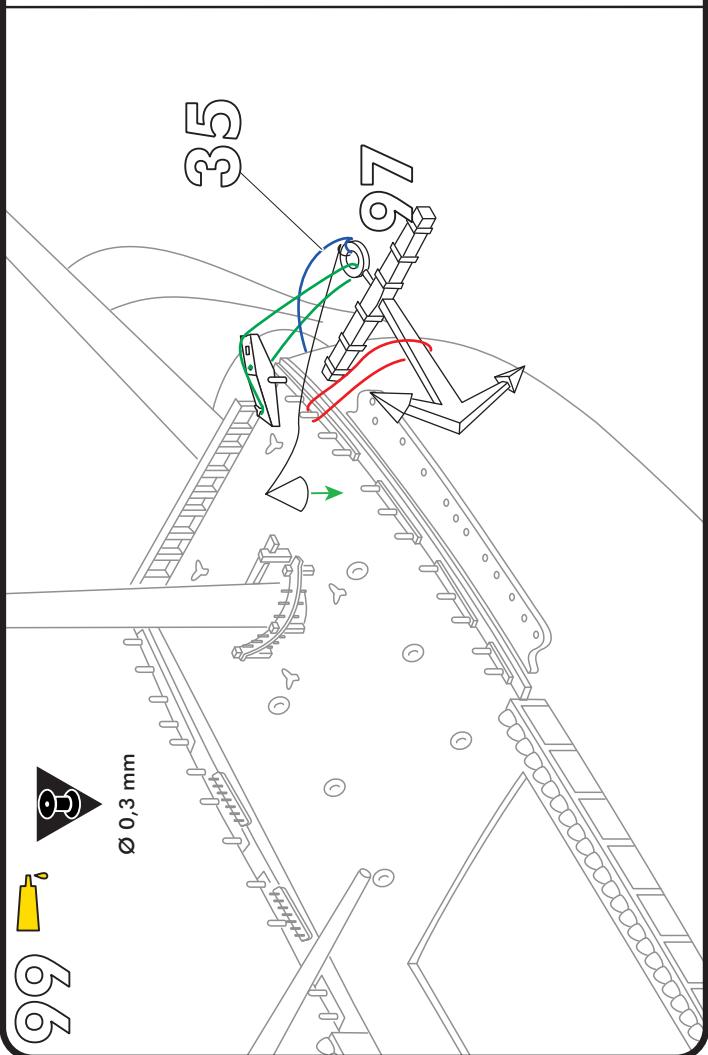
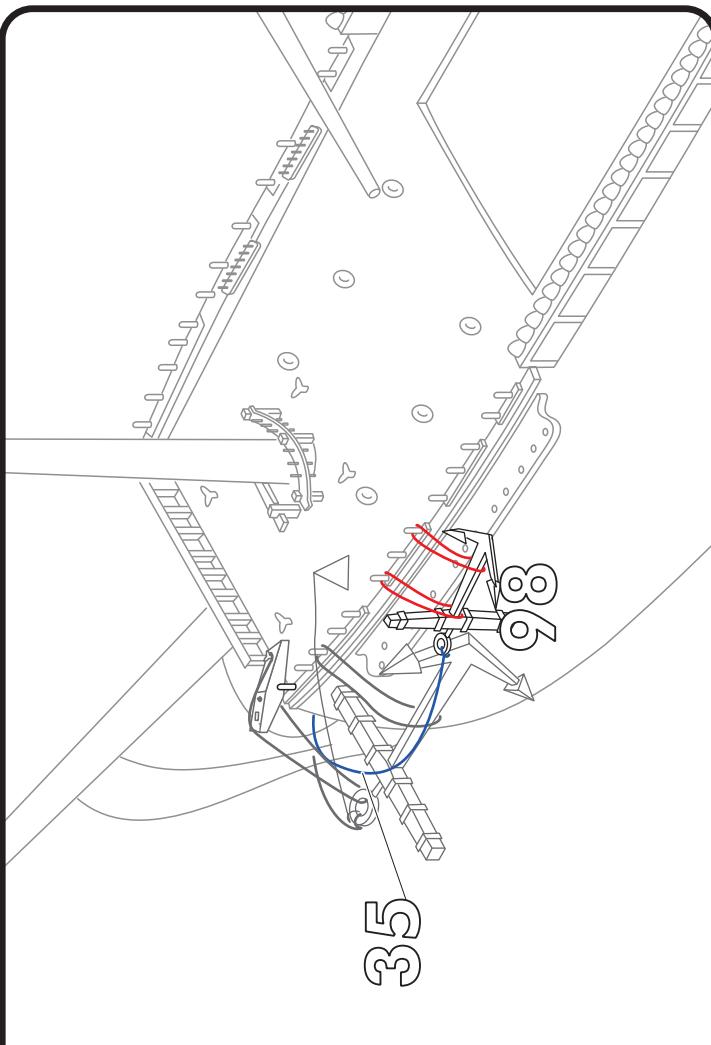
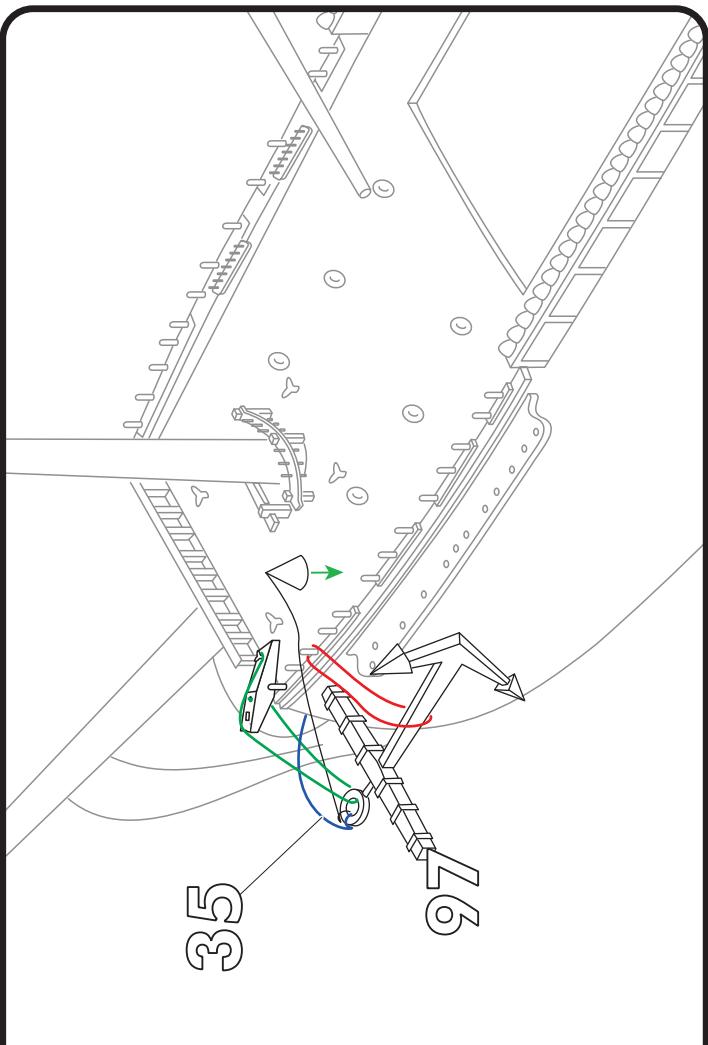
97  
33 98  
  
Ø 0,6 mm

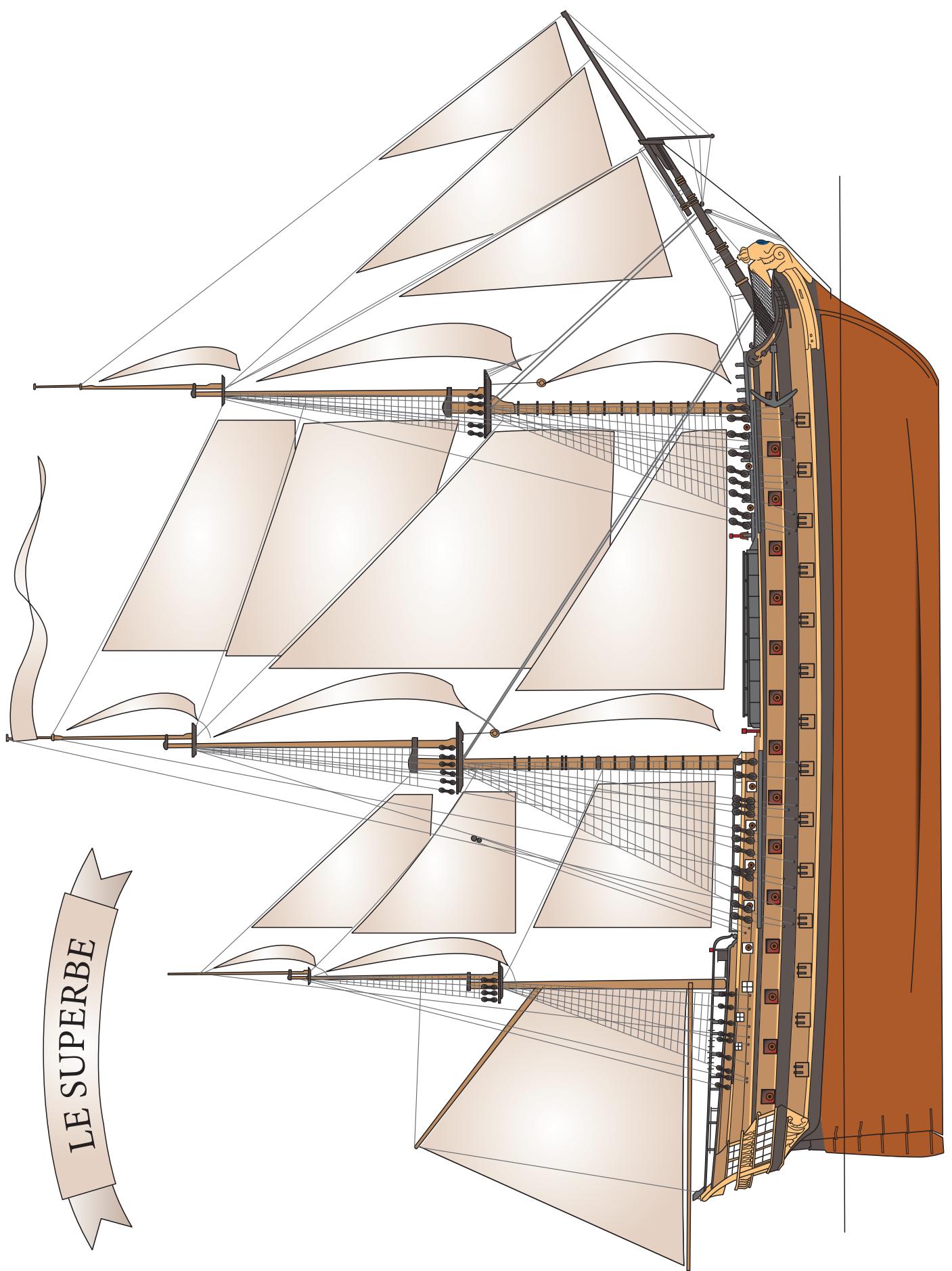


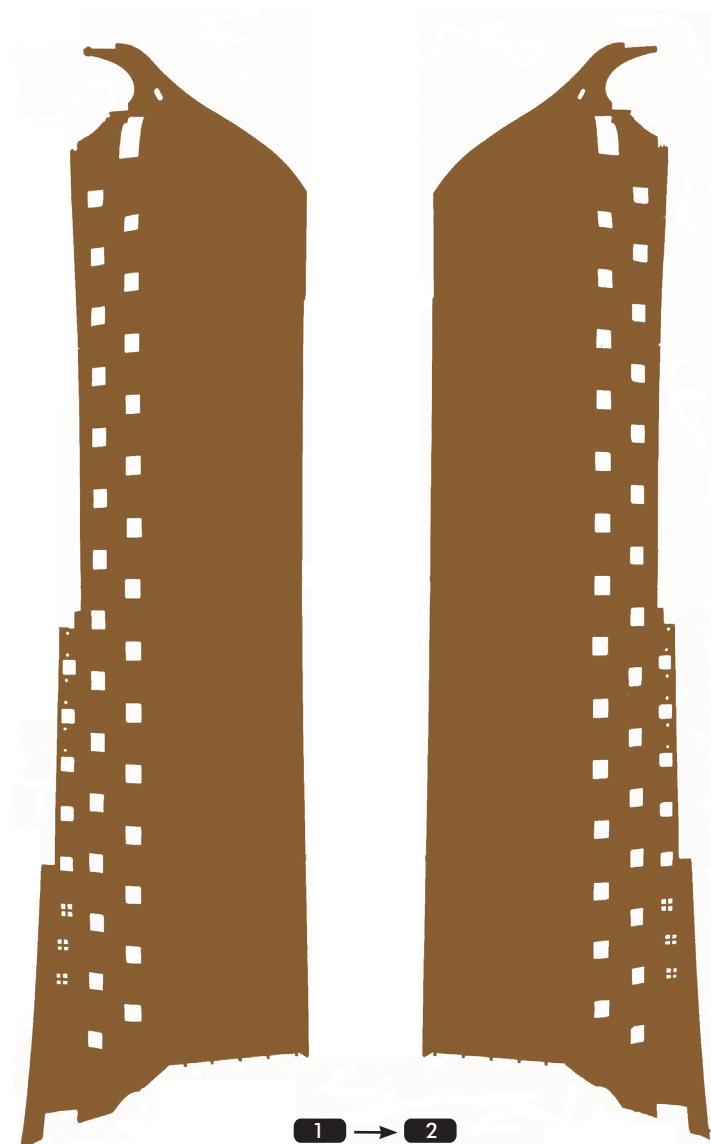
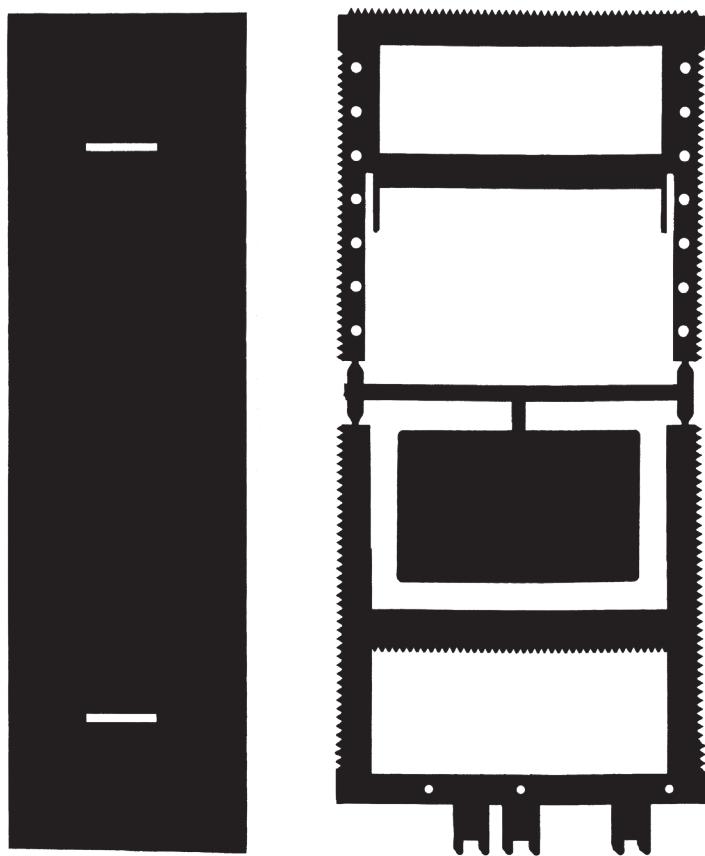
x2

98  
33 98  
  
Ø 0,3 mm





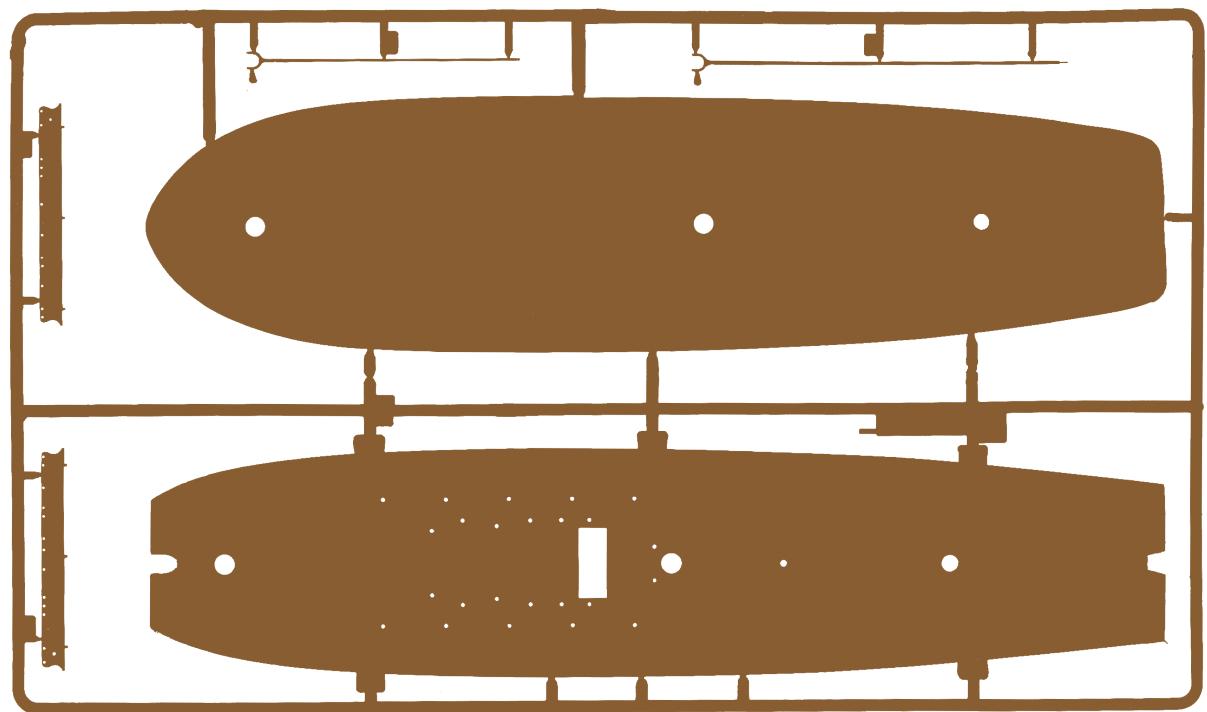




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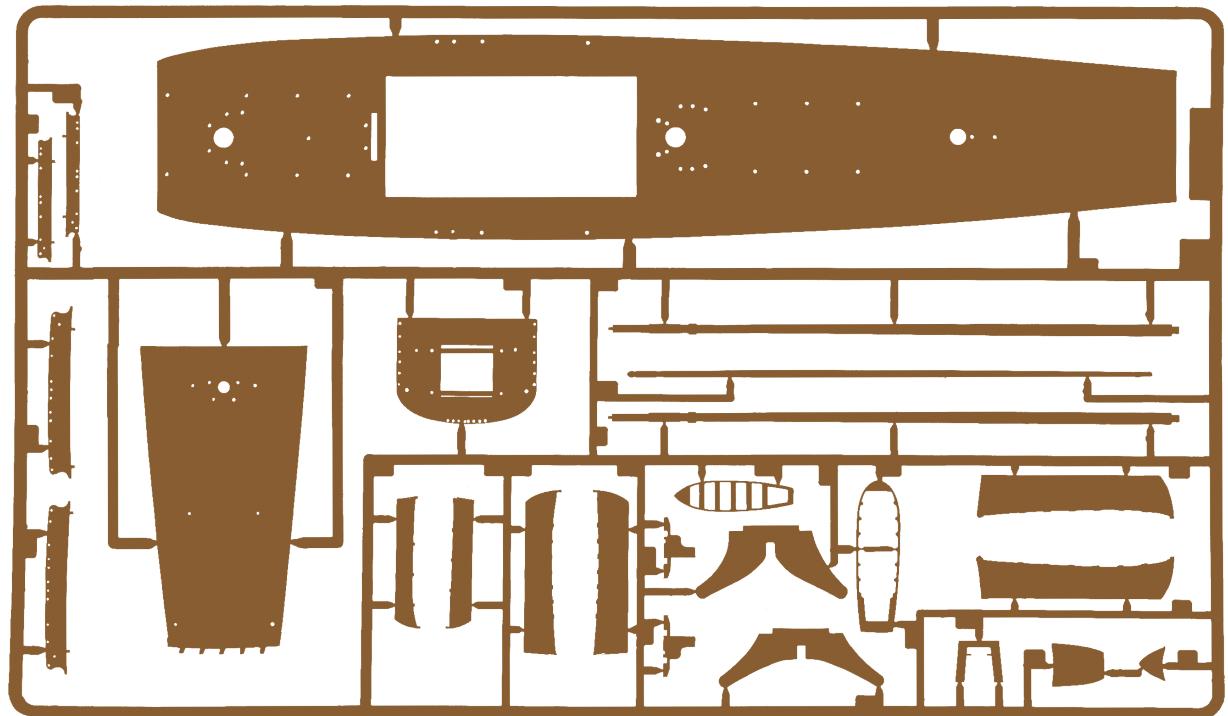
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3 → 8



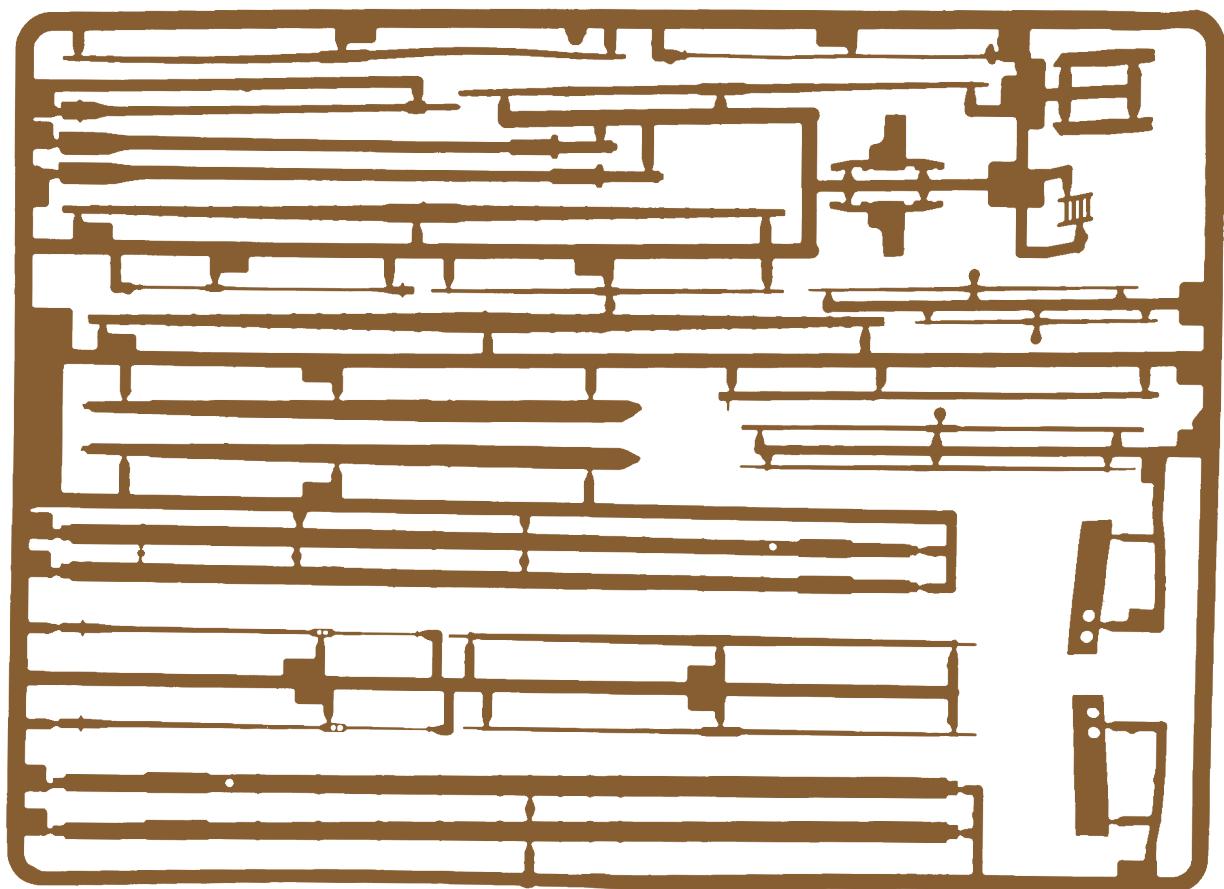
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9 → 32



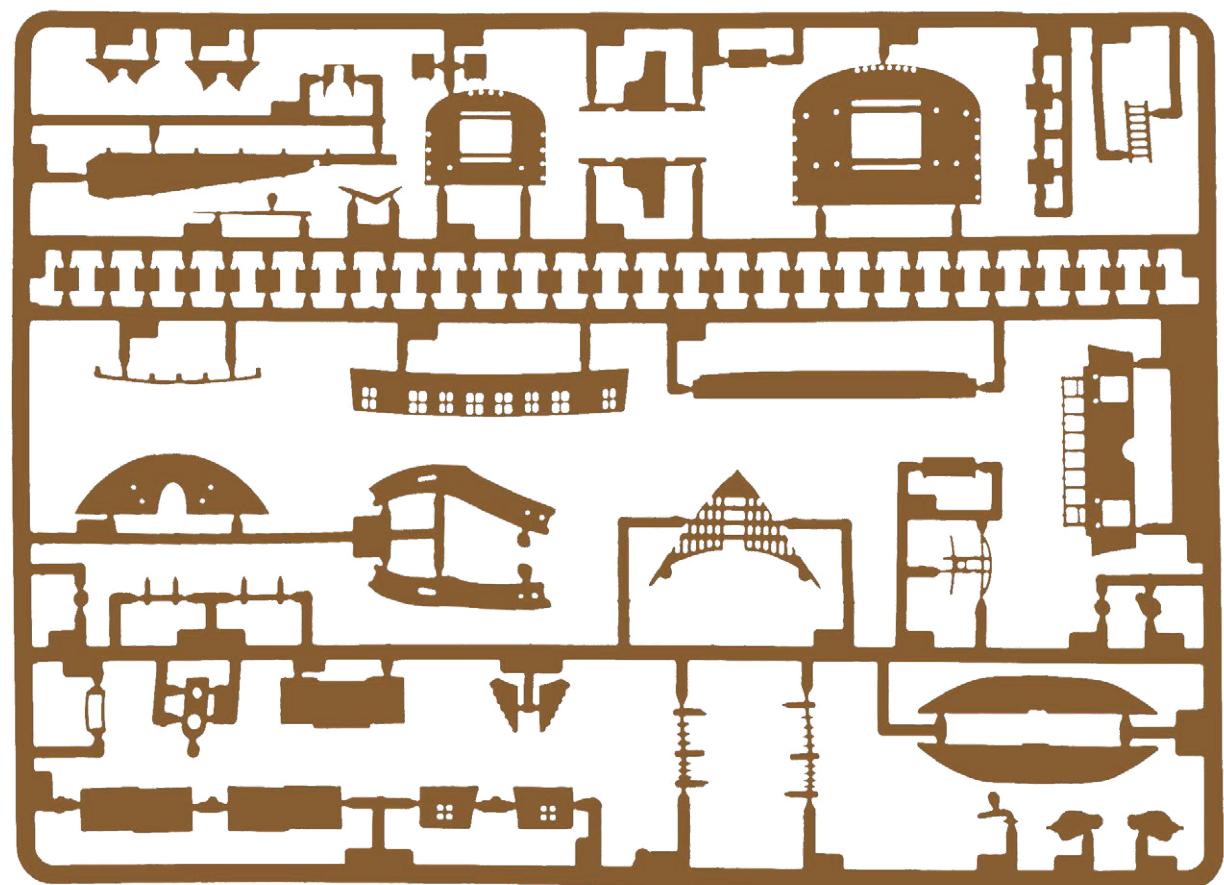
**3**

33 → 64



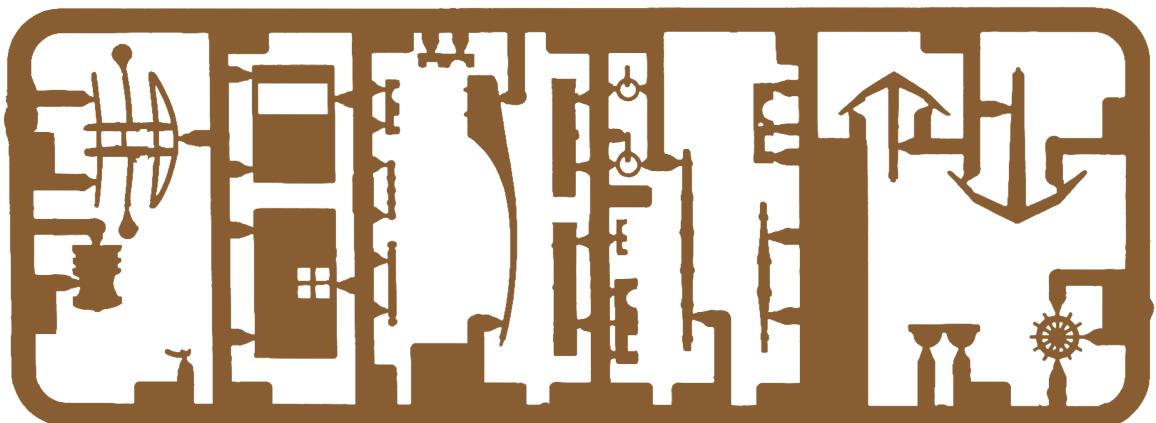
**4**

65 → 110



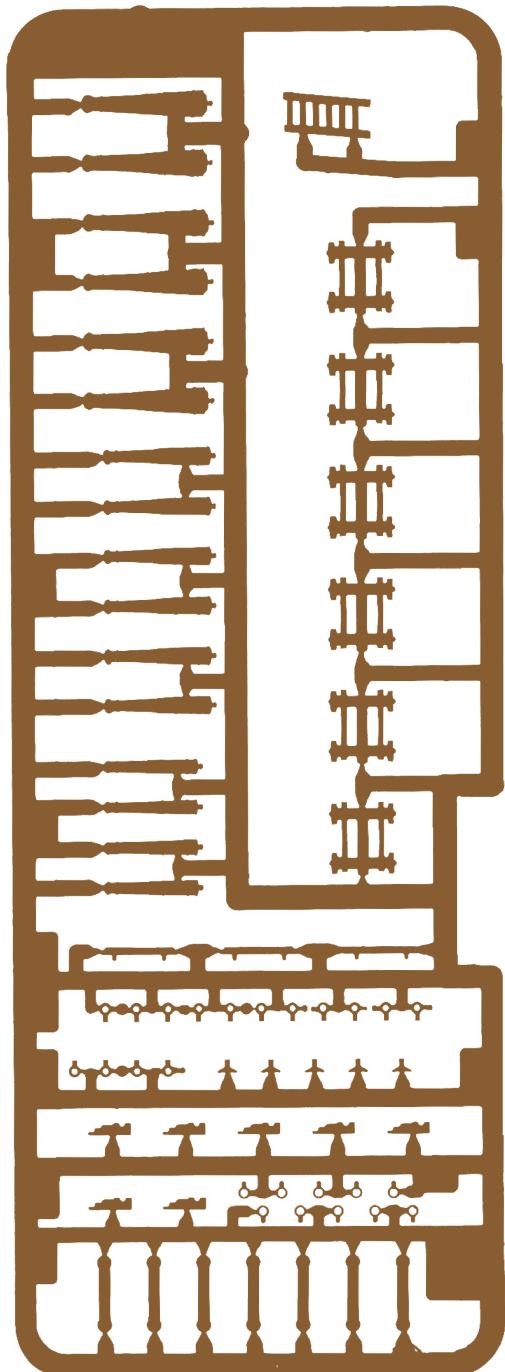
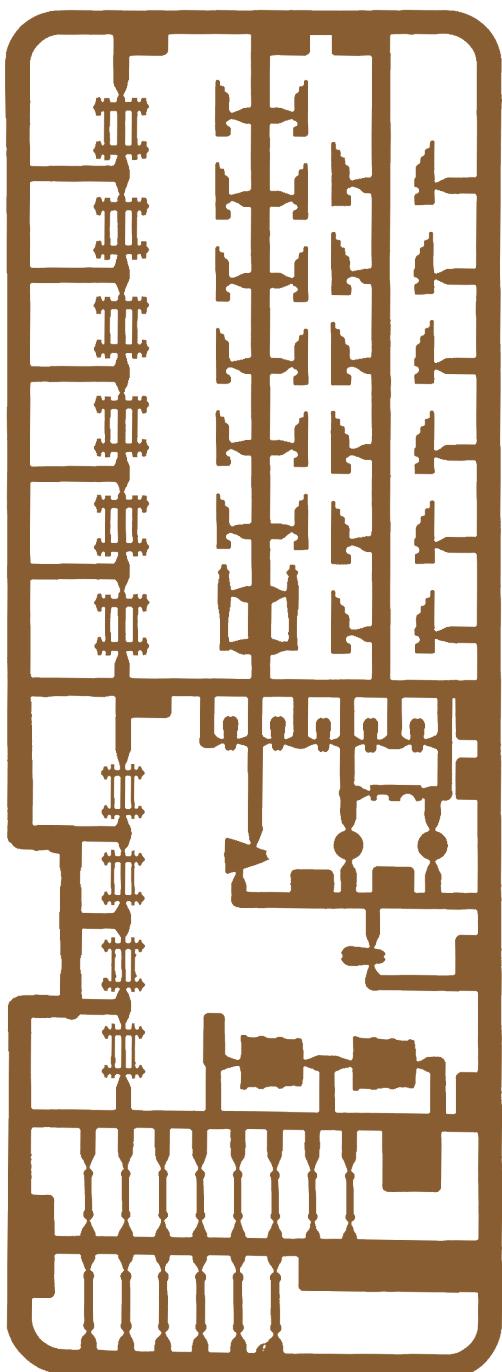
**5** x2

111 → 132



**6** x5

133 → 145

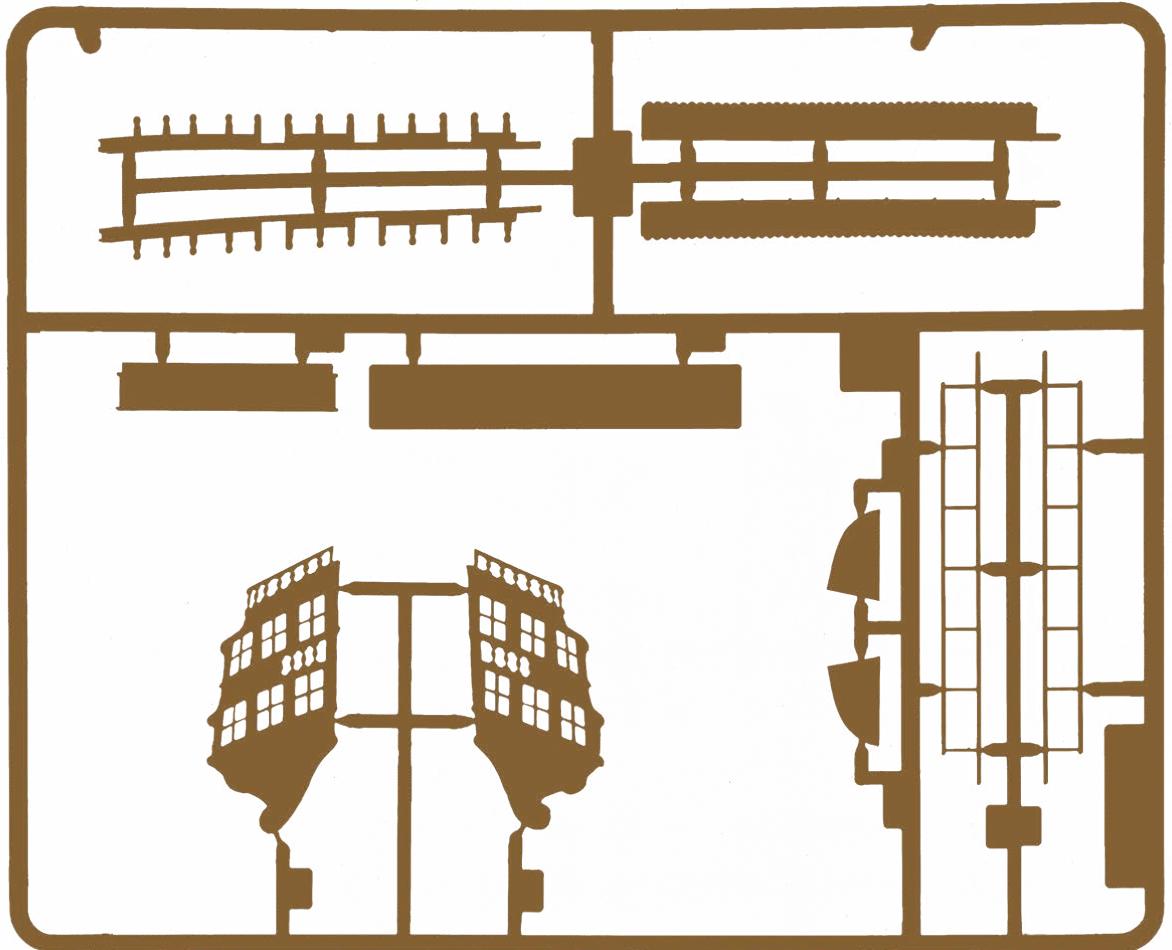


**7** x5

146 → 155

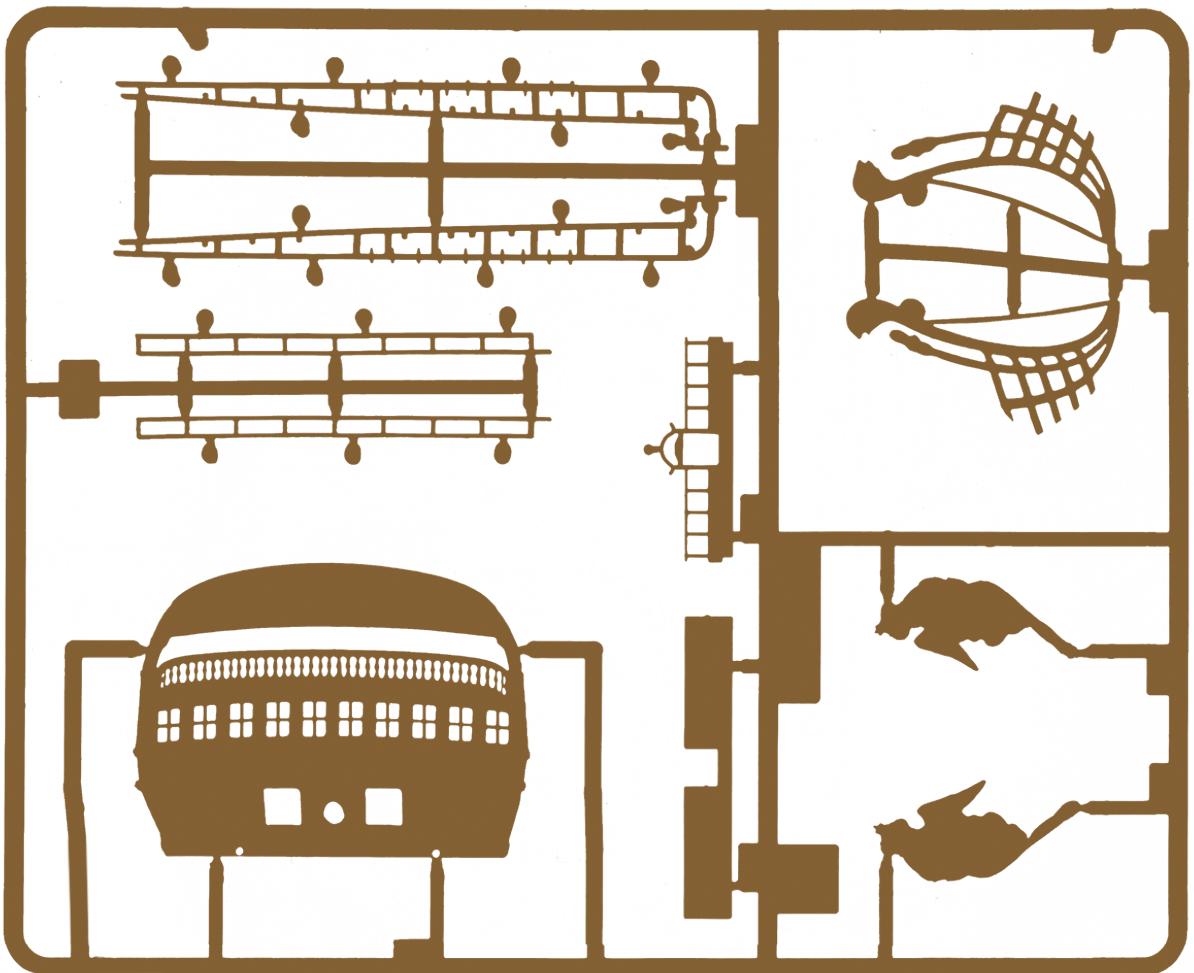
8

156 → 164



9

165 → 175



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