TRANSLATION LINKS

1. type into your browser ... **english+italian+glossary+nautical terms**
2. utilise the translation dictionary 'Nautical Terms & Expressions' from Euromodel website

Essential Resources Cocca Anseatica

Version 05

This resource information file was based on the original text supplied by Euromodel and then expanded in detail as the actual ship was constructed by the author, Peter Coward.

> Whilst relating to the basic build of this ship, there is information in Chapter 4 that is for the advanced builder who may wish to pursue more detailed work.

Neither the author nor Euromodel have any commercial interest in this information and it is published on the Euromodel web site in good faith for other persons who may wish to build this ship. Euromodel does not accept any responsibility for the contents that follow.

[To navigate through the contents – use 'control + click']

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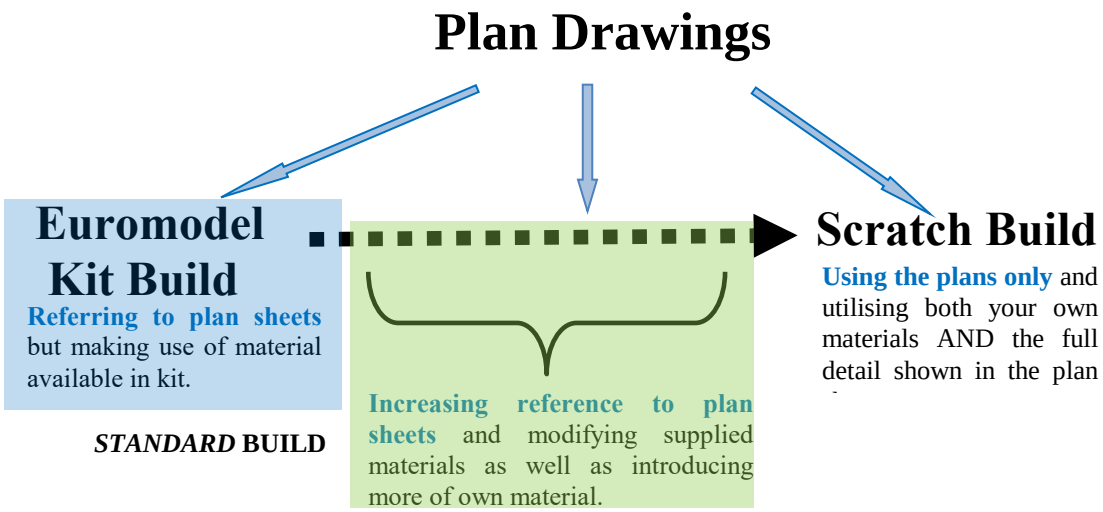
Euromodel Preview



Euromodel kits are based on sets of drawings by a naval architect and contain a comprehensive amount of detail that would be a challenge to the most serious ship modeler. This is in contrast to most other kits that whilst they also contain excellent plans, the intention there is to achieve a build similar to the plans provided. Euromodel offers plans that can be interpreted at various levels of complexity. If the builder has limited experience in the craft of shipbuilding, then the plans can be read at a simplistic level.

It could well be argued that *the outcome is somewhere on the continuum between a standard model construction and a scratch model*. How far you wish to extend this continuum is up to you and your build of this ship will be determined by the degree of complexity you choose (refer to the diagram above).

The kit material will go a long way towards achieving a good model but be aware that the purchase of ***some extra material*** might well be necessary depending on how far you wish to go in emulating the plans.

This particular model is *budget-priced* and designed to attract new builders with its relatively low cost - the *amount of material supplied has been kept to a minimum.*

There will be little left over from the kit contents, but during the construction you should experience a compelling drive to create something better than the basic model. Euromodel is aware of this challenge and so provides just the basic needs and leaves it up to the modeler to determine how far he will extend his skills.

In summary … my comments are not prescriptive and if the detail is sometimes a little too precise, please do not let this deter you. It will be up to you to take as much information as you wish and the rest to 'throw overboard'. It is your model, your creation, your handiwork.

Chapter 1: INTRODUCTION

Historical Notes

"Cocca Anseatica" is derived from the following two words ...

cocca - the name given in the 12th. century to a vessel with the medieval characteristic of a ship with a round hull, and

anseatica - coming from the German word " hansa" that meaning "associations" .This latter term was given to the North European cities of Amburgo and Lubecca that joined in an economical alliance to protect their earthly and especially maritime trades from the attacks of the English, Dutch and Flemish "barons" and corsairs. Other cities like Tallin, Kiel, Frankfurt and Brema later joined this association. From this group grew the development of the armed mercantile ship named "Cocca Anseatica".

Data:
Length - 34 m.
Water Line Length -25 m.
Draught - 2.5 m.
Sails - approx. 265 sq. m.
Net Capacity - 400 ton
Crew - up to 50 men.

Figure 1: Cocca Anseatica

The colours of the sails were dark red, or with vertical white and red stripes or white and green or completely black. The ship represented in our model is slightly larger than many such similar ships and has dark red rope colour sewings.

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Variations

Fig. 1 is a build that ***ignored the supplied mast tops*** shown in the plan drawings completely and yet is still a fine build. This illustrates the freedom presented in creating a semi-scratch build. The construction does not restrict the build and is indeed open to interpretation. The tops shown were a characteristic in many 15th century ships and it is a pity not to include them. Associated with them are pulleys and ropes with what appears to be rocks in maybe a counter-weight system. Both the photo

and the drawing below appear to suggest some sort of cylinder/ bucket and therefore most likely used to supply weapons and other material to a person occupying that top (e.g. an archer)

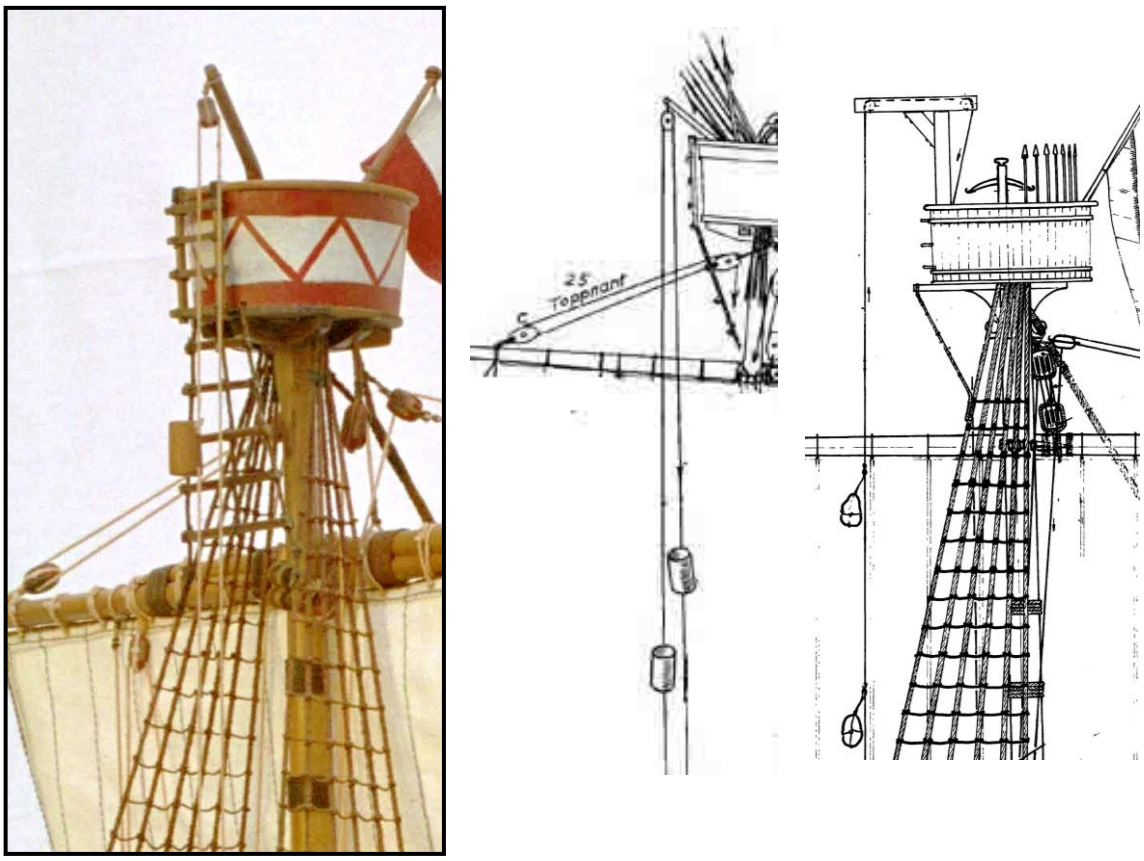


Figure 2: Mast Top with Bucket/ Package System

How *Did* I Build This Ship?

I felt compelled to build this ship from the kit provided but at the same time felt myself drawn to the highly detailed plans which portray far more than the kit provides for. What to do ?

I decided to create a text and photographic portrayal of how the ship could be built from the kit and located in a document on the Euromodel website named '**Cocca Anseatica Notes'**. However, at many points I realised that there were alternative and more detailed construction processes that could be carried out. This usually meant the supply of extra material but having gone to the expense of purchasing the kit, the cost of the extra items was incidental. For these alternative processes, you will see some words or heading that by ustilising 'control+click' will allow you to navigate directly to that area of advanced notes *Error! Reference source not found.*at the rear of this document. Try control+ click on the words 'advanced notes' in the previous sentence. That degree of accuracy is beyond the scope of any kit but not the avid scratch builder. However ... I found myself continually referring to the plan sheet diagrams and calculating how I might improve upon what is in the kit. Somehow, I suspect every builder will become – to some degree – a 'kit/scratch' builder.

In any case it's essential to exercise patience and attention to detail while constructing this model. Without question this ship must be built with passion. The plans are there, an outline of the

fundamental steps are there but in the end the modeller must display a high degree of flair. The plans must be studied at length before beginning because it is there that the builders will develop a 'set of instructions' for themselves.

The kit will not necessarily provide all that is required by the builder. It was designed as an entry, budget-type kit and the serious builder will want to purchase more material to finish the build to a certain standard.

A complimentary criticism of Euromodel's kits is that the photos displayed on the internet do not portray the kit contents provided but in fact are scratch models. The simple fact is that there are so many variations and additions to the original design possible that (at the risk of repetition) no two ships are going to look the same. The more you examine the plans, the more you are likely to lean towards the 'scratch' style of construction.

Euromodel appreciates your choosing this product and wishes you a challenging experience. There is no question that the detail provided here on the plans and the material contained in the kit sets Euromodel kits apart from other kits available on the market.

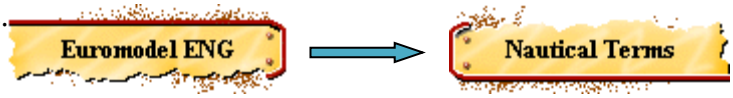
Construction Manual

The following documentation will hopefully assist other future builders an easier pathway of construction. There is no doubt that others will see 'flaws' or better ways of carrying out some step. In the end, there can be no one way of doing anything so please read what I have written and then make your own judgement about the best method for you and your build.

With a limited build-time to create this hull, many might well criticise the quality of construction at some points and you might also be aware that photographing a small area on the hull and enlarging it produces a very different image to the one seen simply through the eye. So whatever you see, make yours better !

Chapter 2: TRANSLATION (from Italian to English)

Whilst every care has been taken with this translation, the author claims little depth of knowledge of Italian and thus various grammar and syntax errors will be apparent to those who are bilingual in these two languages.



An on-line dictionary is to be found on the Euromodel website – 'Nautical Terms' and this will provide assistance for a *large range of terms NOT included in the following pages* of translation from Italian to English.

Italian – English Plan Translation

(Terms shown on the Plan Sheets but not included in the lists below - refer to Euromodel website, 'Nautical Terms')

Tavola 1 **VISTE D'INSIEME**	**Plan Sheet 1** **VIEW OF SHIP, BOW, QUARTER DECK, DECKS & SECTIONS**
SEZIONEN LONGITUDINALE SULLA MEZZARIA	**LONGITUDINAL CROSS SEDCTION VIEW ALONG SHIP**
VISATA DELLE POPPA	**VIEW OF THE STERN**
VISTA DELLE PRORA	**VIEW OF THE BOW & BOW WORKS**
SEZIONE XX/ YY	**CROSS-SECTIONS THROUGH XX or YY**
	LEGEND ***a. Letters & numbers, lower case*** These are used to identify deadeyes & blocks used for standing & running rigging. ***b. Letters & numbers, bold*** These are used to identify standing & running rigging & the placement of blocks and tackles as per the design. N.B. All numbers used in a & b above that are in brackets show the identical detail on the opposite side in the same symmetrical position. The letter 'd' indicates the right ('starboard' – 'tribordo') side. The letter 's' indicates the left ('port' – 'dibordo') side. ***c. Letters in a circle*** These are used to identify the various components of the mast, sails & relevant accessories. The details of items a, b & c are illustrated on Plan Sheet 4. ***d. Numbers in a circle*** These are used to identify all the construction details referring to the hull and are shown in Plan Sheet 3.

Tavola 2 **ORDINATA E PONTI**	**Plan Sheet 2** **PARTS OF HULL FRAME & CONSTRUCTION OF THE HULL**
SEZIONEN LONGITUDINmALE SULLA MEZZARIA	**LONGITUDINAL CROSS SECTION VIEW ALONG SHIP CENTRE LINE**
mezzaria albero di maestra/ mezzana/ albero di trinchetto/ del bompresso	centerline of main/ mizzen/ fore masts & bowsprit
listelli 2 x 1	timber 2 x 1 mm.
specchio di poppa	stern support for decorations
particolare da realizzarsi a cura del modellista	details to be made by modeler
ossatura trasversale	hull transverse frame
poszione del part. 14	Position for part 14
sezione AA’	cross section AA’
posizione del particolare 29	position of beam 29
posizione dei traversini (part. 39)	position of beam support 39 (for part. 29)
particolare degli agugliotti e delle frmminelle del timone	detail of the pins of the rudder gudgeons
incavare (barra) del timone	carve out (tiller) for rudder
esequire a montaggio	carry out on assembly
foro passaggio del bompresso	opening for bowsprit to pass through
no. 1 pezze come a disegno e no. 1 pezze zo opposoto	1 piece as shown in the design and another opposite
profilo da determinare a montaggio	shape determined during assembly
foro 2 per pioli di fissaggio	2 mm. .hole for pin in deck supporting column
Fig. 7: Le dimensioni del part. 41 devono essere determinate praticamente al montaggio.	Fig. 7: The dimensions of part 41 must be determined with commonsense during assembly
A. Le ossature trasversalli dal no. 1 al no. 8 ordinata SP, l’ossatura longitudinale no. 9 e i particolari 21, 22, 23, 24, 29, 30, 31, 32, 39, sono in legno ... etc. B. I ponti di: coperta (18), fraponte (13), batteria (19-27), castello (26), cassero (27), le paratie (25-35) e il coronamento di poppa (33) possono essere costruiti in legno compensato di mm 2 di spessore e rigati con un punteruolo per imitare il fasciame oppure possono essere eseguiti in legno compensato da mm 1 di spessore e rivestiti (sul lato in vista) con ... etc	A. Transverse frames 1-8, stern decorations support, longitudinal frame and pieces 21, 22, 23, 24, 29, 30, 31, 32, 39 are all from 5 mm. plywood. B. The decks – main, between, stern gun, bow gun, forecastle, quarter; the quarter deck ornamentation is built from 2mm. plywood; this can be ruled/ marked with a bradawl to imitate planking or covered with 1 mm plywood cut to imitate planks or cut similar from 1mm thickness wood strips.

Tavola 3 **PARTICOLARI**	**Plan Sheet 3** **PARTICULAR CONSTRUCTION 7 DECK DETAILS**
42.CANNONE – no. 26 pezzi completi	**42.GUNS – 26 complete pieces**
pezzo effettivamente integrante l'armatura	The piece is actually an integral part of the carriage framework (through binding with the rope)
43/44. Particolare da realizzarsi a cura del modellista	43/44. Item to be created by the modeler
45. **BOMBARDELLA** – no. 4 pezzi completi	**45. SMALL BULWARK GUN – 4 complete pieces**
soracco a lama rigida	cut with a rigid blade
INVASATURE PER LE IMBARCAZIONE	**BOAT CRADLE**
Asportare a montaggio sagomando con gli scafi	Shaped on building to fit the contour of the hull
Sistema di costruzione delle scala	Method of construction shown to scale
51. GRAPPINO	**51. GRAPPLING IRON**
a) Eseguire il Part 1 un solo pezzo e schiacciare le estremi ta per ottenere le marre b) Eseguire i Part 2 e 3 c) Stagnare i Part 2 e 3 sul Part 1 facendo attenzione che i quattro bracci rimangana perpendicolari. d) I imare la parte stagnato per ottenere und sezione cilindrica	a) Cut part 1 as a single piece and press the ends to achieve the shaped ends. b) Create shapes for Parts 2 & 3 c) Solder Parts 2 & 3 with Part 1 paying attention to the four arms remaining perpendicular to each other. d) Solder the assembly to produce a cylindrical cross section.
42: BIS CANNONE	**42: HALF GUNS**
per scatola montaggio	to be constructed from blocks
Sistema di costruzione delle ringhie re del cassero e del castello (dimensioni da ricavare dalla TAV no. 1)	**Method of construction for handrails for quarter & forecastle decks** (dimensions to be obtained from Plan Sheet 1)
CAVALLETTO DI SOSTEGNO DELLA NAVA	**SUPPORT TRESTLE FOR SHIP**
(I due supporti sono ricavati sul profilo delle ordinate 3 e 5)	Supports will need to be shaped to fit the profile of hull frames 3 & 5
169 distanza supporti	Distance between supports is 169 mm.
Supporti in legno pregiato – spess. min. 10 mm no. 1 cad.	Supports made from special wood, minimum thickness 10 mm.

Tavola 4 VELE, ALBERI E NODI	Plan Sheet 4 SAILS, MAST & KNOTS
A: BOMPRESSO	**A: BOWSPRIT**
esequire a montaggio	trim on assembly
mastra (radere part. A1)	mast ring/ coaming (trim as shown in A1)
B & C: ALBERI TRINCHETTO E MAESTRA	**B & C: FOREMAST & MAIN MAST**
foro da finire al montaggio	hole size finally determined on assembly
D: ALBERI DI MEZZANA	**D: MIZZEN MAST**
FIGURA A	**FIGURE A**
strallo	stay
sartie	shroud
modo di esequire la legature sulle corde de per : sartie, stroppi, etc	producing the rope lashing for stays, shrouds, etc.
modo di legare sulla caviglia	producing the rope lashing around a belaying pin
modo di legare sulla gallocia	Producing the rope lashing for a cleat
Particolare delle gallocce sulle sartia (no. 1 sulla sartia destra al lato interno e no. 1 sulla sartia sinistra nella posizione indicata dalla freccia nella fig. “A”)	Shroud cleats (one on the right shroud rope on the inside surface and one on the left shroud rope in the position shown by a thick arrow in figure A).
I: COFFE	**I: TOPS**
rigatura da esequire sui 2 lati	grooved lines to be formed on both sides
foro per asta della bandiera (a montaggio)	hole for flag pole (to be created)
rigatura su lato superiore / inferiore	grooved lines on upper surface / lower surface
aperture da contromarcare dal patt. 3	openings derived from using pattern 3
ricavare da fil di ferro 1 mm. schiacciato ad ... etc	Obtain iron wire 1mm. thickness and press at one end
legature vedere particolare ‘Y’	showing the lashing detail for ‘Y’
piastrina d’ottone spess. 0.3	showing brass strap 0.3 mm. thickness
modo d’inserire le bigotte del le sartie di ... etc	placing shroud deadeye of main mast chain plate… etc
modo di eseguire le griselle	method of carrying out the lashing of the ratlines
modo di eseguire gli arridaloi del le sartie	method of carrying out the lashing of the shroud lanyard
particolare della bigotta fissa della strallo di maestra	detail of fixing of deadeye of main stay
particolare del paranco delle drizze del pennone di trinchetto e di maestra	detail of block & tackle connecting to yard arm of foremast and main mast
L: VELA DI TRINCHETTO	**L: FOREMAST SAIL**
matafioni d’inferitura	reef point of head rope
stoffa in piu per orlo	excess material (overlap) over edge rope
orlo in corda	rope edge
M: VELA DI MAESTRA	**M: MAIN SAIL**
stoffa da lasciare in piu per poter eseguire l’orlatura	material over the edge allows making of the hem
N: VELA DI MEZZANA	**N: MIZZEN SAIL**
Particolare della mura di mezzana	mizzen sail detail
modo di eseguire i matafioni per la inferitura dell vele sui pennoni	method of producing the reef point of the head rope for sails on the yards

Chapter 3: COMPONENT LIST

1. Wood – Laser-cut

Keel (1) - Chiglia
Transverse Frames (9) - Ordinate
Plywood sheet 2 x 230 x 590 mm [decks - main, lower, stern gun, bow gun, forecastle & quarter; quarter deck ornamentation - Tavoletta di compensato stampata da mm. 2 x 230 x 590
Stem Post (1) - Ruota di prua
Stern Post (1) – Ruota di poppa
Rudder (1) - Timone
Support Base (1) - Invasatura

N.B. Retain every scrap piece of walnut surround from the 10 mm. block that contained the laser-cut pieces. This will be invaluable in constructing some small fittings.

2. Wood - Limewood

20 x 30 x 160 mm.	**Filler Blocks for Bow** - Blocchetto di riempimento va fatto di prua
8 x 12 x 450 mm. (2)	**Longitudinal stringers** - Correnti lunghezza
10 x 10 x 300 mm. (1)	**Cannon supports** – Supporti cannoni a canna tronca

3. Wood -Walnut

2 x 8 x 570 mm. (52)	**Planking** - Fasciame
0.5 x 4 x 500 m. (45)	**Deck planking** *(Rivestimento ponti)*
10 x 10 x 220 mm. (1)	**Cradle support cross pieces** - Traversa invasatura
5 x 10 x 350 mm. (1)	**False Keel** - Sottochiglia
2 x 5 x 570 mm. (3)	**Cap rail** – Capodibanda
2 x 2 x 570 mm. (4)	**Wales Upper** - Incintoni
3 x 15 x 200 (1)	**Channels**- Parasartie
2 x 5 x 570 mm. (1)	**Cap rail** - Capodibanda
3 x 3 x 570 mm. (1)	**Cap Rail Supports** – Colonnine supporto capodibanda
4 x 4 x 500 mm. (2)	**Forecastle bitt & mast cranes** – Cavigliere di castello e gru di coffa
6 x 6 x 200 mm. (1)	**Main mast bitt rail & forecastle pin rail** – Cavigliera di maestra e pazienza di castello

Anchor with stock & ring (2) – Ancora con ceppo ed anelli(Art.11/046)
Barrel (2) – Bott1 (Art.22/078)
Belaying Pins: (19) - Caviglia (Art.11/018)
Blocks, 5mm., 1 hole (10) - Bozzelli da mm. 5 a 1 foro (Art.22/028)
Blocks, 7mm., 1 hole (30) - Bozzelli da mm. 7 a1 fori (Art.22/030)
Blocks, 7mm., 2 hole (1) - Bozzelli da mm. 7 a 2 fori (Art.22/034)
Blocks, 7mm., 3 hole (4) - Bozzelli da mm. 7 a 3 fori (Art.22/039)
Buckets, Mast Hoist (2)
Bulwark Cannons (4) – Bombardella/ Colubrina (Art. 11/001)
Cleats (2) - Galloccia (Art.22/049)
Cleats (15) – Galloccia (Art 11/048)
Coat of arms, two-colour inlay – (20) stemmi bicolore intarsiati (Art 33/006)

Coat of arms, grifone inlay – (22) (grifone is a mythological bird/ beast used in heraldry) **–** stemmi con grifone intarsiato (Art 33/007)
Deadeyes, 5 mm. (24) - Bigotta da mm. 5 (Art.22/074)
Deadeye Straps/ Chain Plates (12), 3mm.- Landra (Art 11/312)
Flag set (1) - Complessivo bandiere (Art.13/012)
Guns (26) - Cannoni (Art.11/050)
Ladders (6) - Scale (Art.22/068)
Plaque (1) - Targa invaso (Art.12/002)
Pump (1) – Pompa semplice (Art 22/102)
Rigging yarn
0.25mm. (Art. 77/025); 0.40mm. (Art. 77/040); 0.80mm. (Art. 77/080); 1.0mm.(Art. 77/); 1.50mm.(Art. 77/150)
Rudder hinges (4) - Cerniere timone con perno (Art.11/047)
Sail boat Hull, 100 mm. with keel (1) - Scialuppa da mm. 100 (Art.88/006)
Sail boat Hull, 80 mm. with keel (1) - Scialuppa da mm. 80 (Art.88/007)
Sail Cloth, 450 x 450 mm. - Serie tela per vele mm. 450 x 450
Set of Plans (4 sheets) - Serie disegni (No 4 Tavole) (Art.66/002)
Tops (2) – Coffe (Art 22/155)
Tops, support (8) – Supporti coffe (Art 22/156)
Instructions - Istruzioni

Masts & Spars – Alberi e Pennone

10 x 460mm. (1), 10 x 290 mm. (1) ; 8 x 350 mm. (1); 8 x 330 mm. (1); 8 x 300 mm. (1); 6 x 200 mm. (1); 5 x 330 mm. (1)

A: BOWSPRIT

Bowsprit Mast – Albero di bompresso (10 mm.)

B: FOREMAST

Fore Lower Mast – Albero di trinchetto (8 mm.)
Fore Main Yard - Pennone di trinchetto (86mm.)

C: MAIN MAST

Main Mast - Albero di maestra (10 mm.)
Mainsail Pennant Yard – Pennone di maestra (10 mm.)

D: MIZZEN MAST

Mizzen Mast – Albero di mezzano(8 mm.)
Lateen - Asta vela di mezzana (5 mm.)

E: STERN

Outrigger Boom – Asta poppiera del buttafuori (5 mm.)

Chapter 4: MORE ADVANCED IDEAS

The following ideas are extensions that might be used by more experienced builders. In no way are they intended to be prescriptive for a basic build.

Measurements

The following commentary is about taking things to an extreme ‘measure’ and only represents a whim that I decided to follow.

Maybe very few builders will ever go this extent ... but in order to interpret the plan drawings of the hull side view, it should be remembered that the drawings are a three-dimensional view shown in two dimensions. Allowances could be made for this ‘abberation’. The changes in dimension will be small and if this change is not followed, things will still fit into place. This particularly relates to ports and the wales.

Remember though, the position of the ports was established early in the construction of the hull so what follows, for most, will be superflous !

These techniques allows for a closer reproduction of that shown in the plan drawings.

Fig. 3 indicates how the bottom edge position of the port might be determined.

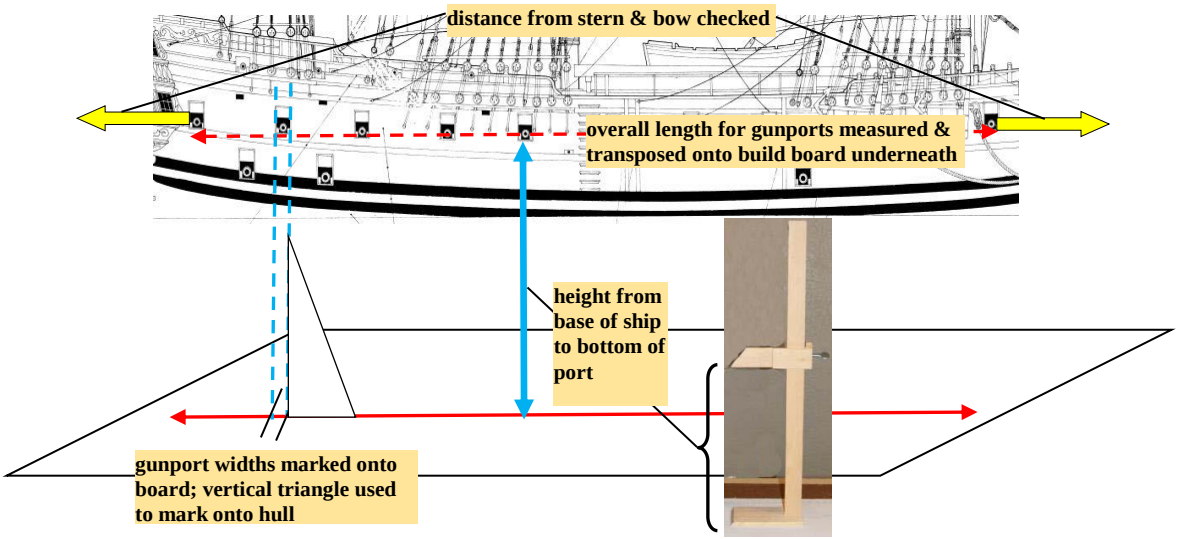


Figure 3: Establishing Gunport Positions

One aspect to double check on is the width of the ports as the bow curves – particularly the end port (chase port). On the drawings, these will appear to narrow due to their being a three-dimensional representation. In fact, all ports will have the same width.

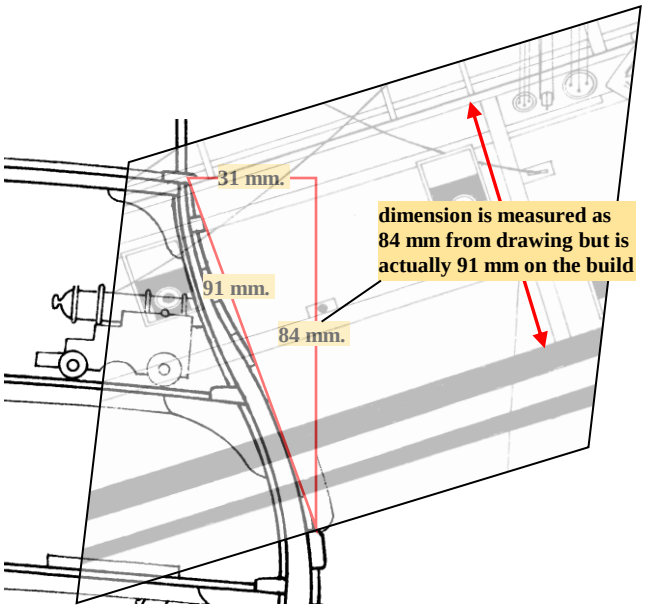


Figure 4: Making Adjustments for Three Dimensions

Fig. 4 illustrates a common problem faced by builders – the drawing illustrates what is *seen* but not what is *measured* … it is a three-dimensional view presented as a two-dimensional view.

The figures shown in Fig. 4 were taken straight off the computer screen but the *ratio of figures will remain the same*.

84 mm. from the drawing is actually 91 mm. on the model.

For gunport and wale readings, the figures obtained would be multiplied by 91/84.

(i.e. increasing measurements by a factor of **1.083**)

e.g. ***28 mm***. becomes 28 x 91/84 = ***30 mm.***

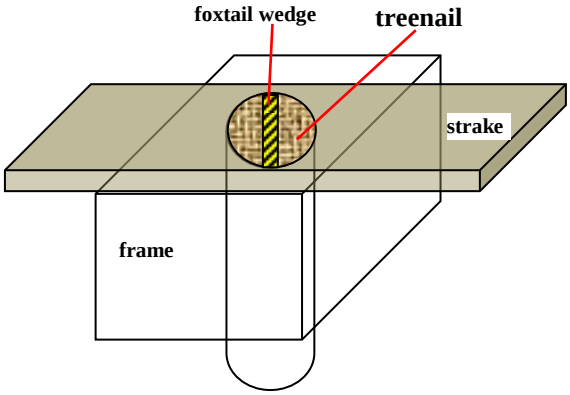


Figure 5: Diagrammatic View of Treenail

Treenail (or trenail, trennel or trunnel)

Instead of using metal fasteners to fix planks to the frames, it was common to do treenailing. This consisted of inserting wooden 'pegs' which were of a softer wood, into drilled holes and then expand their outer end with a wedge of much harder wood driven into them called a foxtail wedge. When the ship was immersed in water, the wooden pegs would swell and further tighten the pegs. This method worked extremely well to maintain the ship's physical integrity.

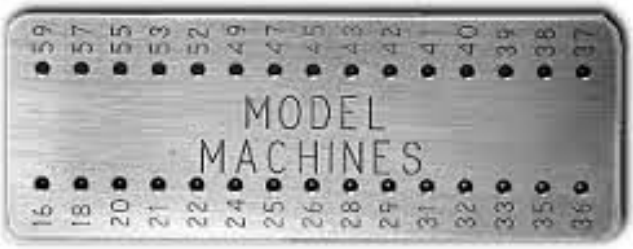


Figure 6: Byrne's Draw Plate

In ship modelling, it is common to manufacture these treenails from bamboo barbeque sticks by splitting them along their length and then passing them through a draw plate to create a specific diameter.

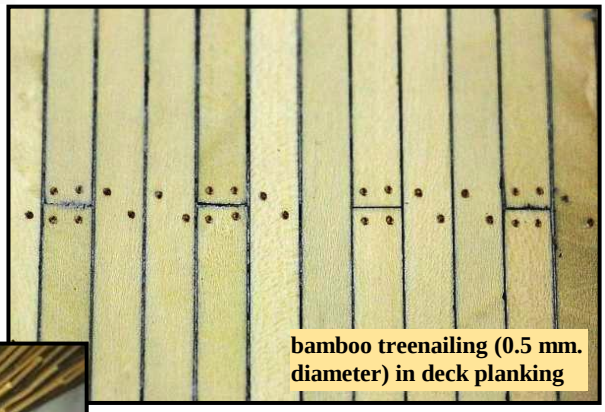


Figure 7: Treenailing Examples

Rigging Tool

A gift came from Canada that contained this combination of a needle threader and a looper threader ... really fantastic to use. The threader is approx. 135 mm. in length which makes it a very handy length when getting amongst all the rigging.

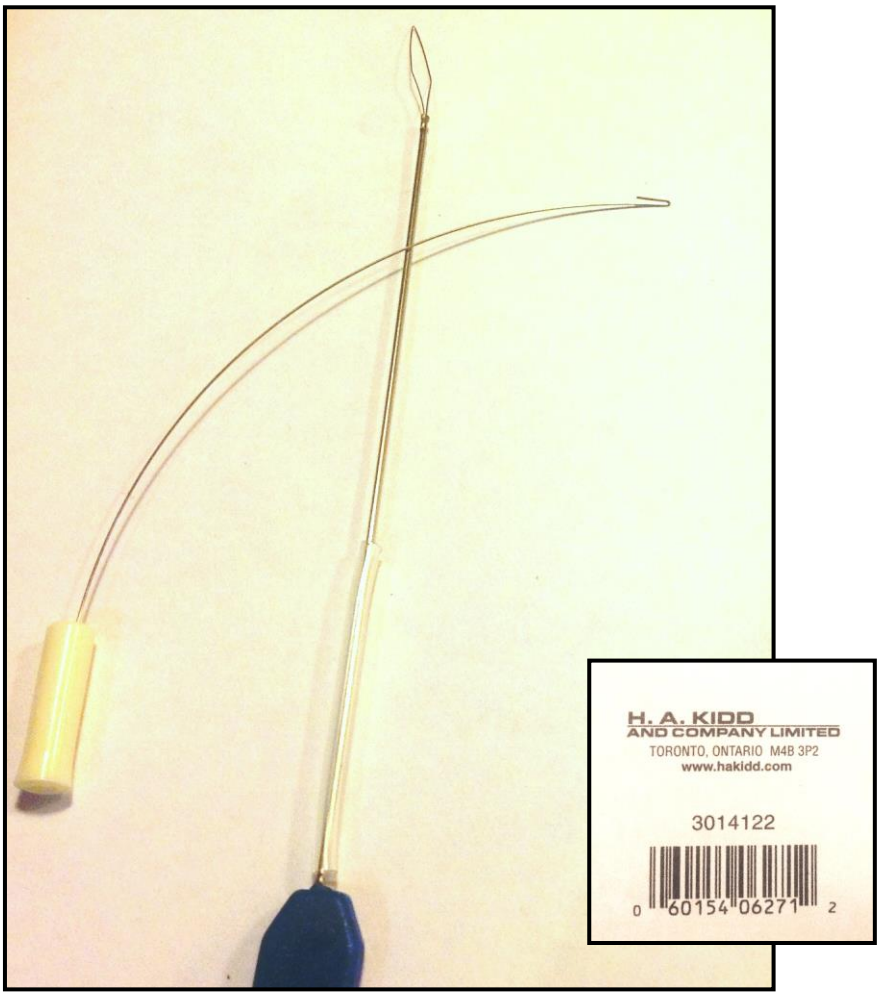


Figure 8: Two Rigging Tools

Plank Bending

I like this machine although I do not have one (as yet). From the Micro-Mark Catalogue comes the following description ...

‘ Professional Quality Bending Machine Forms Smooth Curves in Wood, Plastic and Metal’

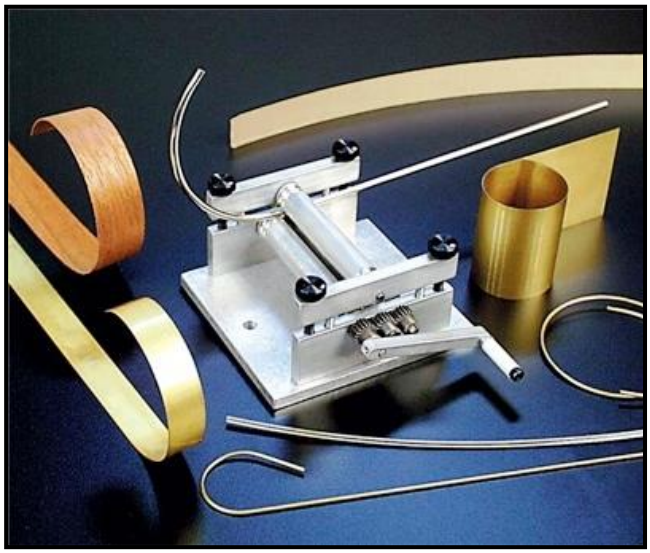


Figure 9: Micro-Mark Bending Machine

‘There's never been a better, easier-to-use tool for making perfect bends in ship model planking. ***Works on wood strips up to 2-1/4 inches (approx. 57 mm.) wide and 1/8 inch (approx. 3 mm.) thick***...even plywood! ... ... Simply set the rollers for the desired radius and turn the crank to feed and form the material. ... ... Precision machined of aluminum with steel gears. Rollers are 1/2 inch (12.7 mm.) diameter by 3 (76.2 mm.) inches long.’

KeithW has shown this in his Royal William build log.