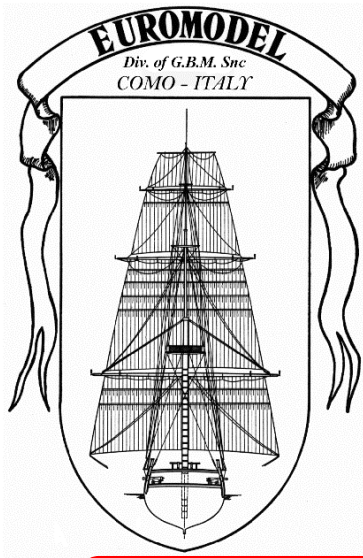


TRANSLATION LINKS

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



An ***interpretive*** review

of the

Lyde

English Schooner

1787

Scale 1:80

**Checked the
*Essential Resource
Information File ?***

10.MAIN MAST SPARS

December 2022

This **interpretive** review is based on the supplied drawings, the kit material – and an amount of ***extra material***.

This work only illustrates how this ship might be built. The level of complexity chosen is up to the individual

This resource information 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. Neither the author or 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.

Reference Text

The Mastng and Rigging of English Ships of War 1625 – 1860 by James Lee (1984). Another indispensable book !

The Construction and Fitting of the English Man of War 1650-1850 by Peter Goodwin (1984)

Historic Ship Models by Wolfram zu Mondfeld (1989).

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

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Chapter 1: SPARS

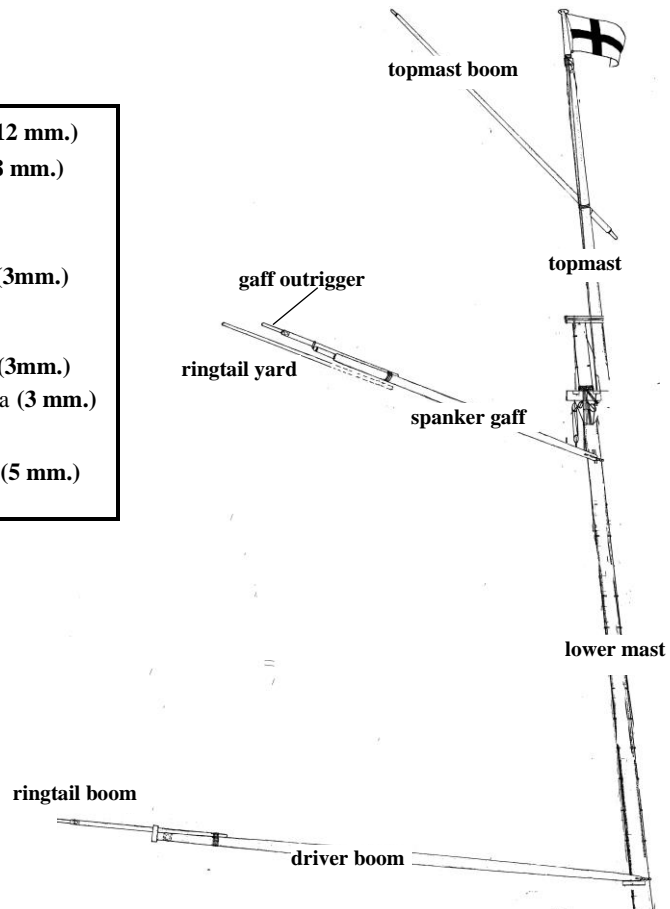
Overview

Names

albero di maestra

The generic name 'spars' includes all masts and yards.

- | |
|--|
| <p>Lower Mast - Albero di maestra (12 mm.)
Topmast – Alberetto di maestra (8 mm.)</p> <ol style="list-style-type: none">1. Driver Boom – Bome (8mm.)2. Ringtail Boom - Buttafuori del bome (3mm.)3. Spanker Gaff – Picco (6 mm.)4. Gaff Outrigger – Buttafuori del picco (3mm.)5. Ringtail Yard – Pennola di controranda (3 mm.)6. Topmast boom – Asta di controranda (5 mm.) |
|--|



Blocks

- I: 3mm., 1 hole (1)
- G/H: 4mm., 2 hole (2)
- C/E: 5mm., 1 hole (7)
- D/F: 5mm., 2 hole (2)
- A: 7mm., 1 hole (3)
- B: 7mm., 2 hole (3)
- Tackle: 7mm., 3 hole (4)

Lower Main Mast

1. Driver Boom

- photocopy made of that part of the drawing and the top and side views cut out.
- initial jaw outline was initially made *over-size*.
- jaw radius established at *6.1 mm* and carved out.
- overall shape was roughed out and the two halves glued in position on the tapered boom.
- serious shaping to specified dimensions made much easier with my Dremel, its flexible drive shaft and various shaped tools.



Figure 2: Initial Step in Jaw Carving



Figure 3: Driver Boom Jaw



2. Ringtail Boom



Figure 4: Ringtail Boom Plan View

The ringtail boom (green) is offset to the port side and slightly above the driver boom.

- no tapering along the 3 mm. spar
- length of spar drawing is 95 mm (stated is 91 mm.) – 95 mm was used
- mast cap: 3 x 10 x 15 mm.

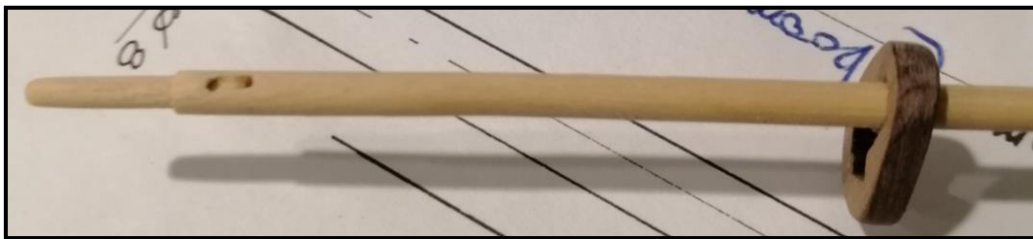


Figure 5: Ringtail Spar

Supplied Cap

Euromodel supplies an item but whether it is utilised or not is much dependent on the degree of accuracy that the builder wishes to reproduce.



Figure 6: Supplied Mast Cap

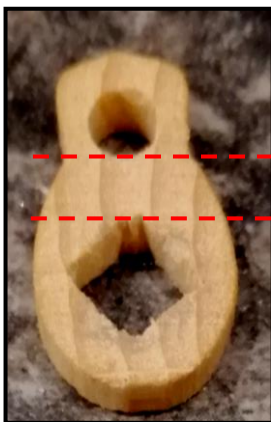


Figure 7: Rough-Formed Openings

Fig. 7 shows the two openings in an unfinished state created to judge the separation between them if using the supplied item. Here it was approx. 3.3 mm.

If the drawings are accurate, then that separation needs to be approx. 1.8 mm. Whilst seemingly a small difference between the two figures, it is enough to create a larger separation between the two booms than suggested in the drawings. A suggestion here would be to add a small spacer at the forward end between the booms before lashing the two together

Custom Cap Construction

- large **3 mm.** thick timber piece was selected to allow for ease of handling and through this a **3 mm.** hole was drilled,
- pencil line (yellow) drawn through hole centre,

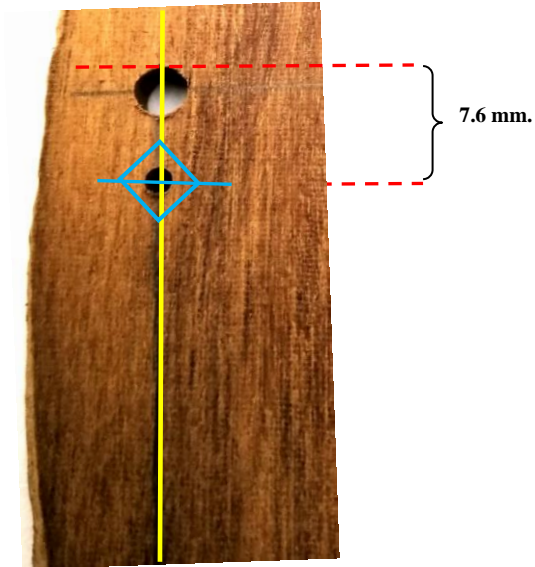


Figure 8: Establishing Cap Squared Hole

- point **7.6 mm** below the top edge of the upper **3 mm.** hole was marked on the centre line,
- **4 mm.** square outline (blue) marked out using the 7.6 mm. measure as the square centre,
- pilot hole (e.g. **1.5 mm.**) drilled out in the square centre,
- hole enlarged using a small round file,
- hole squared using a suitable square CS file
- *the top of the squared hole should now be only **1.8 mm.** below the round hole.*

The cap was shaped with slightly concave sides but less than in the supplied item. Note the decrease in separation between the two spars.

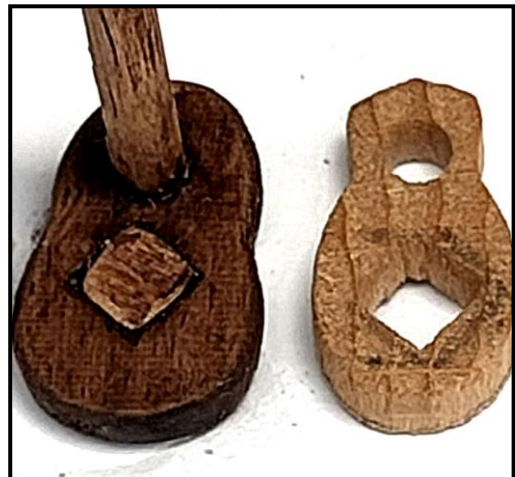


Figure 9: Comparing Custom vs Supplied Cap

3. Spanker Gaff

Plan Sheet 1 (Fig. 10) shows the forward end of the boom as being similar to that of the driver boom. Drawing details are incomplete.

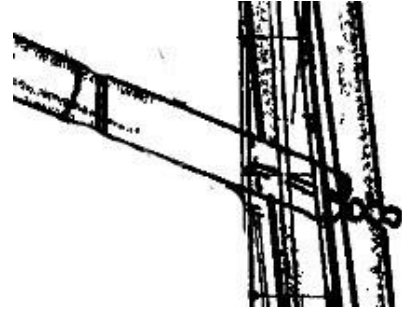


Figure 10: Plan Sheet 1 Spanker Gaff

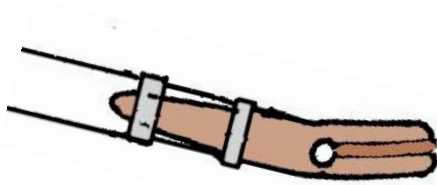


Figure 11: Angled Spanker Gaff Jaws

Plan Sheet 6 shows the spanker gaff jaws with a distinctive angle (Fig. 11).



Figure 12: Checking Alignment & Mast Fit

In spite of no confirmation of the angular form in Lees, it was decided to follow this latter form. The method used was similar to that for the driver boom – two halves of the jaw were roughed out according to the dimensions implied in the drawing, glued to the boom and then shaped appropriately.

Fig. 12: jaw opening (broken yellow line) was checked against the lower mast diameter as well as the angular fit (broken white line).



Figure 14: Iron Hole, Aft End of Spanker Gaff

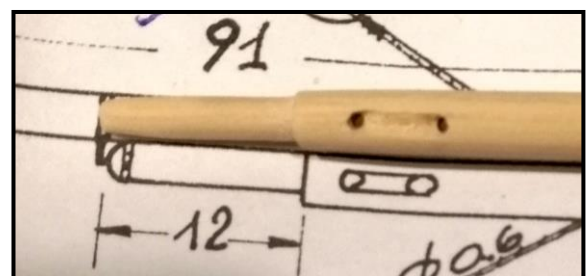
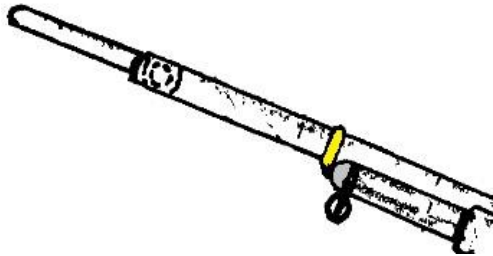


Figure 13: Spanker Gaff Aft End

A **0.75 mm** hole formed in end of spanker gaff aft end – *before reducing the arm down to its final diameter.*

4. Gaff Outrigger



Iron

The outrigger iron (yellow) shown in Plan Sheet 1 & 6 is approx. **1 mm** wide which is indicative of a wire rather than the traditional sleeve. In this build the latter was produced from some **0.5 x 3 mm.** diameter brass strip. The metal cap placed over the spanker gaff end was simulated by painting black.

Figure 15: Outrigger Iron

The build of the iron was to be conceptual ...

- a suitable length was cut to enable a **3.5 mm.** internal diameter sleeve to be formed,
- a **0.8 mm** hole was drilled halfway along the strip
- the band strip was formed into a cylinder but the butting edges not neatly soldered as some would do,
- the cylinder was fitted into position and a hole drilled into the timber behind the hole in the strip,
- free end of gaff outrigger iron (Fig. 16, red) inserted into the spanker gaff aft end.

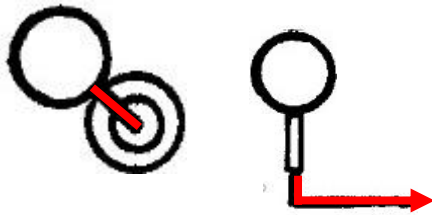


Figure 16: Gaff Outrigger Iron (red line)

Spar

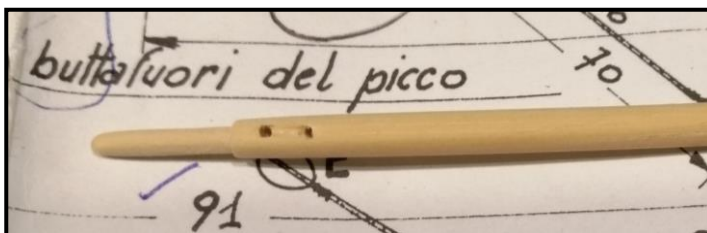


Figure 17: Gaff Outrigger Aft View

Tapering: as stated

Aft arm : **2.1 mm.** diameter

Sheave holes: **0.75 mm**

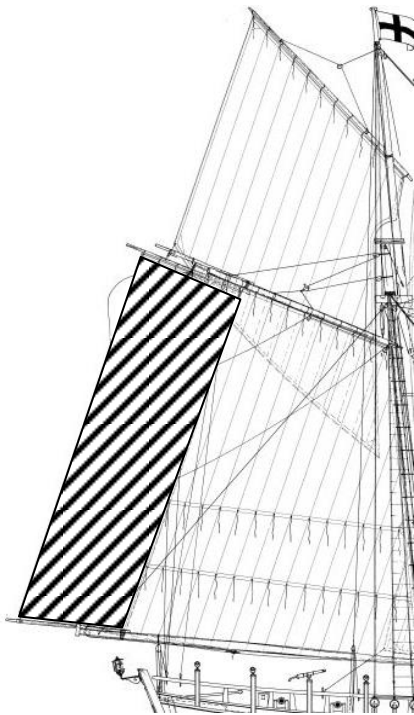


Figure 18: Ringtail Sail

Aft arms : *1.7 mm.*

Yard: *2.8 mm.*

Diameters

5. Ringtail Yard

Ringtail sail originally had the ringtail yard close to parallel to the gaff (Fig. 19) and slung with the halyard in the middle of the yard, so that the yard and sail protruded beyond the gaff.



Figure 19: Ringtail Yard Below Gaff Outrigger

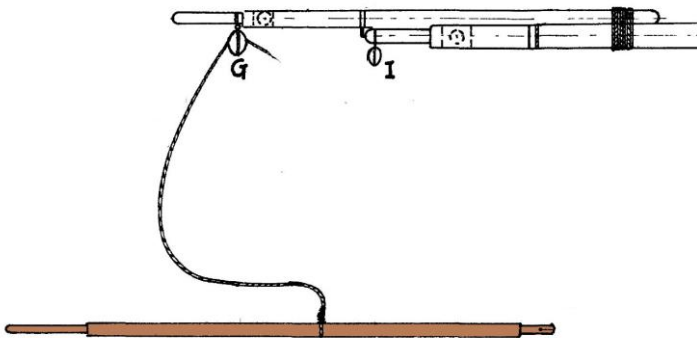


Figure 20: Ringtail Yard from Plan Sheet 6

Given the above comment concerning support in the middle of the yard, this Euromodel drawing has the support at only *45 mm* from the forward end rather than what should be *52 mm*. ?

If the build is without sails, then this yard will require some additional support to keep it in position.

Topmast

6. Topmast Boom

Spar and arm thicknesses are different at each end.



Figure 21: Topmast Boom