

# Ensenada 25

## Bill of Materials

**MATERIAL LISTING:** Do NOT purchase materials from this listing without first reading the instructions and checking the plans for options. This listing includes materials for the basic hull only as built from sheet plywood, and not the building form or temporary framing members. Check scraps after building the hull before purchasing additional materials for the balance of the project.

**PLYWOOD:** : All plywood must be either Exterior or Marine grade. Interior plywood should not be used. The best grade that one can afford should be used, especially for planking. Although some builders manage to get by with Exterior grades with face grades below "A" or "B" quality, these are questionable in strength and durability. Douglas fir plywood is acceptable in all cases as are the imported hardwood types commonly used in boatbuilding. Check the plans for options in all cases in lieu of the listing. Do NOT downgrade your quality of plywood even though the boat is covered with fiberglass or being built with epoxy glues and/or encapsulation systems.

**LUMBER:** Do NOT purchase any lumber until you read this section. Do NOT purchase any NET sized materials unless the lumber size is specifically listed as "NET". All lumber thickness should be purchased as standard lumberyard stock finished as full as possible except for lumber specifically noted as "NET". For example, 1" stock usually finishes out to 3/4" thickness and this is what is purchased EXCEPT WHEN NOTED AS 1" NET. This is intended to save the builder money by minimizing custom milling costs. All widths, however, are noted as net. When possible, group lumber together to resaw yourself to the required sizes. All lumber should be checked to the plans before purchase and checked against the instructions for options. Douglas fir (preferably dense clear vertical grain) and Sitka spruce are specified because they are light and strong. Dark red Philippine mahogany is also suitable in some cases. Other woods may be used if of comparable characteristics. However, heavy woods such as oak should not be used if performance is important. Woods of good strength and lightweight qualities not ordinarily used on boats may be suitable if an epoxy encapsulation system (highly recommended in any case) is used in order to prevent damage or weakening by water and/or rot.

LUMBER: DF = Douglas-fir; SS = Sitka spruce; PM = Philippine-mahogany.

| <b>LUMBER:</b>                 |                 |  |   |
|--------------------------------|-----------------|--|---|
| <b>MEMBER</b>                  | <b>MATERIAL</b> | <b>NO. RQD</b>                                   | <b>LENGTH</b>   |
| Transom & Bulkhead Framing     | DF, SS          | 5  | 1" x 6" x 12'0"   |
| Stem                           | DF              | 3  | 2" x 4" (nominal) x 8'<br>Rip each into 3 equal thickness layers approx. 9/16" thick x 3" net wide. |
| Keel                           | PM, DF          | 2  | 1" x 10" x 20'0"  |
| Chine logs                     | DF, SS          | 2  | 1-1/4" x 2-1/2" x 25'0"   |
| Battens                        | DF, SS          | 2 @ 21'0"<br>2 @ 22'0"<br>2 @ 23'0"<br>6 @ 26'0" | 1" X 1-1/2"   |
| Sheer clamps                   | DF, SS          | 4  | 1" x 2-1/2" x 27'0"   |
| CB trunk fwd upright           | DF              | 2  | 2" net x 8" x 5'0"  |
| CB trunk aft spacer & upright  | DF              | 1  | 2" x 4" net x 6'0"  |
| CB trunk bed logs & pin blocks | DF              | 2  | 1" x 6" x 9'0"  |
| CB trunk cap cleats            | DF              | 2  | 1" x 4" x 7'0"  |
| CB trunk cap                   | PM              | 1  | 1-1/4" x 6" x 7'0"  |

**PLYWOOD:** Includes decking/cockpit but not cabin or interior. "ABX" refers to Exterior plywood with AB minimum face veneers. "ABMAR" refers to Marine plywood with AB minimum face veneers. Plywood denominated by millimeter thickness can be substituted if of comparable thickness.

| MEMBERS                      | TYPE       | NO. SHEETS | SIZE                                  |
|------------------------------|------------|------------|---------------------------------------|
| Transom, gussets             | ABX        | 1          | 3/4" x 4' x 8'                        |
| Trunk sides, keel lamination | ABX        | 3          | 1/4" x 4' x 8'                        |
| Bulkheads, etc               | ABX        | 4          | 3/8" x 4' x 8'                        |
| Planking                     | ABMAR      | 14         | 1/4" x 4' x 8'                        |
| Decking                      | ABX<br>ABX | 4<br>1     | 3/8" x 4' x 10' (*)<br>3/8" x 4' x 8' |
| Cockpit                      | ABX        | 2          | 3/8" x 4' x 8'                        |

(\*) See layouts. Full length panels can be made from shorter butt- or scarf-joined panels to the noted length overall.

#### **FASTENINGS:**

- Screws: Flathead wood type, bronze or hot dipped galvanized. Totals are approximate.
- 1" #8 - 1300
- 1-1/4" #8 - 200
- 1-1/2" #8 - 300
- 2" #10 - 200
- 3" #14 - 12
  
- Nails: Ring type boat nails, bronze or Monel
- 1" #12 = 1 pound
  
- Bolts: See Fastening Schedule & plans for requirements
  
- **Adhesives:** Epoxy adhesives are advised throughout the construction. These may be an epoxy adhesive or epoxy resin. Epoxy resins should be used with thickeners (silica or equal) per the instructions with the resin and/or thickening agent. Due to the noted options, the amount required is difficult to estimate. A gallon container of epoxy should be more than enough.