

Tango Bill of Materials

The following list of materials is intended to be a general guide only. Before ordering any materials, the text and plans should be checked for possible options. All lumber listed as 1" stock is to be standard "lumberyard four-quarter" material which when finished may vary to somewhat less or slightly more than 3/4" in thickness. All widths are NET and all lengths allow for cutting to fit. Grouping lumber and purchasing random-random material to resaw to the required size will result in considerable savings. All lumber used should be first grade free from shakes and knots. Although spruce (Sitka variety) and mahogany (dark red Philippine type) are called out in the listing, lumber typical to the locale and of similar types and weights may be substituted. All plywood (PW) is to be marine (MAR) or exterior (EXT) grade. The marine-type is preferable as the inner cores are solid and thus the panel has more structural integrity. Douglas-fir (DF) is satisfactory with the quality of the exposed faces of the veneer being designated by the letters "A" or "B". The "AA" grade panels are always preferable, however, "AB" grade is acceptable. All plywood should be a minimum of three plies. All fastenings should be bronze or hot dipped galvanized ferrous metal. Brass fastenings are not advised nor are the electroplated screws commonly sold in hardware stores. All screws are to be of the flat head type intended for wood. All nails are of the ring-type nail common to boat construction. Unless otherwise specified, all wood-to-wood joints are to be glued with a waterproof or highly water resistant glue such as plastic resin, resorcinol, epoxy, or other equivalent type used per the manufacturer's instructions regarding temperature, clamping requirements, curing time, and mixing method.

ITEM	NO. PCs.	SIZE
<p>LUMBER: Mahogany, Douglas-fir, Sitka spruce, or white oak may be used. See instructions for options,</p>		
Transom, frame & beam members		Random-random material in as long of lengths and as wide widths as possible with some widths to 8" - 1" ("four quarters") x 40 bd. ft.
Centerboard trunk	1	1" x 2" x 12'

framing	1 1 1 2	1" x 4" x 10' 1-1/2" NET x 2" x 2'-6" 1-1/2" NET x 2" x 1'-6" 2" x 9" x 4'-6"
Keel	2	1" x 6" x 15'
Bottom battens	2 2 2	1" x 2-1/2" x 16' 1" x 2-1/2" x 14' 1" x 2-1/2" x 11'
Chine logs	2	1" x 2" x 18'
Sheer clamps	2	1" x 1-1/2" x 21'
Carling	2	1" x 6" x 15'
Cabin clamp	2	1" x 6" x 15'
Deck battens & strongbacks	1 2	1" x 3" x 6' 1" x 2" x 5'
Rudder & tiller	1 1	1" x 12" x 6' 1" x 3" x 3'-6"
Bowsprit	1	2-1/4" NET x 2-1/4" x 5'
Toe rail	2	1" x 1-1/2" x 21'
Rub rail	2	1/2" NET x 1-1/4" x 21'

PLYWOOD:

Bottom planking	DF MAR AA or AB	2 3 OR 2	3/8" x 4' x 8' 3/8" x 4' x 8' 3/8" x 4' x 10' (optional)
Side planking	DF MAR AA or AB	5 OR 4	3/8" x 4' x 8' 3/8" x 4' x 10' (optional)
Transom & stem	DF Ext AB	1	3/4" x 4' x 8'
Breasthook & floor timbers	DF Ext AB	1	3/4" x 4' x 4'
Decking	DF Ext AB	3	3/8" x 4' x 8'
Centerboard trunk side & gussets	DF Ext AB	1	3/8" x 4' x 8'

FASTENINGS:

The following lists the fastening totals from the Fastening Schedule. It is not meant to be a comprehensive total or the actual number and type of fastenings that may be required due to possible variations and options noted.

- SCREWS: Flat head wood type, bronze or hot dipped galvanized iron.
- 3/4" #8 Screws - 2 gross
- 1" #8 Screws - 5 gross
- 1-1/4" #8 Screws - 2 gross
- 1-1/2" #8 Screws - 1 gross
- 2" #10 - 1 gross, 2 dozen
- 3" #14 - 2 dozen

- NAILS: Ring type, Bronze or Monel
- 1" #12= 3 pounds

- 1-1/4" #12 - 1 pound
- CARRIAGE BOLTS: Bronze or hot dipped galvanized
- 5/16" (check lengths to work) - 5 required

GLUE: Epoxy - Approximately 1 gallon