

Outrage 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, unless specified as NET. 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 oak (white oak), spruce (Sitka), 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.

CHECK ALL SIZES TO THE WORK PRIOR TO CUTTING. Abbreviations used are: Mahog = mahogany; SP = spruce; DF = Douglas-fir; PW=plywood; Ext=exterior; MAR=marine.

ITEM	MATERIAL	NO. PCS.	SIZE
LUMBER:			
*Frame Members	Mahog, Oak or SP		40 bd ft four quarter stock random/random

Keel	Mahog, Oak or SP	1	2" x 4" x 9'-3"*
Chine Logs	Mahog, Oak or SP	2	1" x 2-1/4" x 18'
Sheer Clamps	Mahog, Oak or SP	4	5/8" net x 1-1/4" x 18'
Sheer Clamps Inner Laminations	Mahog, Oak or SP	1	5/8" net x 1-1/4" x 12'
Bottom Battens	Mahog, Oak or SP	2 2 2	1" x 3" x 14' 1" x 3" x 12' 1" x 3" x 10'
Lift Strakes	Mahog, Oak or SP	2 2	1" x 2-1/2" x 12' 1" x 2-1/2" x 10'
Carling	Mahog, Oak or SP	2	1" x 4" x 11'
Strongback	Mahog, Oak or SP	1	1" x 2" x 8'
Deck Battens	Mahog, Oak or SP	2	1" x 2" x 7'
Deck Blocking	Mahog, Oak or SP	2	1" x 2" x 3'
Deck Beams	Mahog, Oak or SP	1 1	1" x 3" x 7' 1" x 3" x 5'

Coaming	Mahog, Oak or SP	2	1" x 9" x 11'
Dash Beam	Mahog, Oak or SP	1	1" x 6" x 6' **
Motor Well Beam	Mahog, Oak or SP	1	1' X 6" X 6'
Motor Well Side Supports	Mahog, Oak or SP	2	1" x 8" x 2'
Motor Well Cleats	Mahog, Oak or SP	1	1" x 2" x 12'
Athwartship Brace	DF	1	2" x 4" x 6**
PLYWOOD:			
Transom, floor timbers (**), stem breasthook & transom knee	DF Ext AB	2	3/4" x 4' x 8'
Side Planking & Butt Blocks	DF MAR AB or AA	1 1	1/4" x 4' x 8' 1/4" x 4' x 10'***
Bottom Planking	DF MAR AB or AA	4	3/8" x 4' x 8'***
Decking & Butt Blocks	DF MAR AB or Mahog Ext PW	3	1/4" x 4' x 8'***

Inner Keel Lamination, Motor Well, Bottom Planking Butt Blocks	DF Ext AB	1	3/8" x 4' x 8'
Gussets	DF Ext AB	1	1/4" x 4' x 4'

* Designates standard lumberyard size in both width and thickness

** See instructions for options

***Can substitute 4' x 8' sheets. Adjust quantity accordingly.

FASTENINGS:

Screws: Flathead wood type, bronze or hot dipped galvanized

- 3/4" #8 - 4 gross
- 1" #8 - 4 gross
- 1-1/4" #8 - 2 gross
- 1-1/2" #8 - 2 gross
- 2" #10 - 1 gross
- 3" #14 - 2 dozen

Nails: Ring type boat nails, bronze or Monel

- 1" - 2 pounds
- 1-1/4" - 1 pound

Carriage Bolts: Bronze or hot dipped galvanized complete with nuts and washers.

- Keel to stem - 5/16" x 7" - 3 required
- Keel to transom knee - 3/8" x 9" - 3 required
- Transom to transom knee - 3/8" x 7" - 2 required
- Deck beams to frames - 1/4" x 2" - 4 required

Glue: Epoxy - 1 gallon