

Raven 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), Sitka spruce, and mahogany (African, Honduras, or Phillipine-dark red varieties) are called out in the listing, lumber typical to the locale and of similar types and weights may be substituted. Long-leaf yellow pine is a good substitute for oak. 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 = Sitka spruce; DF = Douglas-fir; PW=plywood; Ext=exterior; MAR=marine.

ITEM	MATERIAL	NO. PCS.	SIZE
LUMBER:			
Frame "D", bulkheads & transom framing	Mahog, Oak or SP	8 lin. ft.	1-1/4" x 10"
		19 lin. ft.	1-1/4" x 4"
		18 lin. ft.	1-1/4" x 3"
		27 lin. ft.	1-1/4" x 2"
Sheer clamps	Mahog, Oak or SP	100 lin. ft.	1" x 2"

Chine logs	Mahog, Oak or SP	2	1-1/4" x 3" x 22'
Keel**	Mahog, Oak or SP	1	2" x 6" x 19'
Bottom battens	Mahog, Oak or SP	2	1-1/4" x 3" x 17'
		2	1-1/4" x 3" x 14'-6"
		2	1-1/4" x 3" x 12'
Cockpit stringers**	DF	2	2" x 6" x 4'
Carling	Mahog, Oak or SP	2	1" x 3" x 18'-6"
Lift strakes	Mahog, Oak or SP	2	1-1/4" x 2-1/2" x 12'
		2	1-1/4" x 2-1/2" x 16'
Sheer cap rail	Mahog, Oak or teak	2	1/2" Net x 1-1/2" x 25'
Deck framing*	Mahog, Oak or SP	14 lin. ft. 1" x 4" 10 lin. ft. 1" x 3" 8 lin. ft. 1" x 2"	

PLYWOOD:

Bulkheads	DF Ext AB	2	3/8" x 4' x 8'
Transom*	DF Ext AB	1	3/4" x 4' x 8'
Stem, transom stiffener*, breasthook, floor timber	DF Ext AB	1	3/4" x 4' x 8'
Decking	DF Ext AB	3	1/2" x 4' x 8'
Bottom planking	DF Ext AB	2	1/2" x 4' x 10'***
		4	1/4" x 4' x 12'***
Side planking	DF Ext AB	2	3/8" x 4' x 12'***
		2	3/8" x 4' x 14'***

*Will vary between outboard and inboard version; check drawings.

**Refers to material which will be standard lumberyard size in both width and thickness.

***4' x 8' sheets can be substituted for longer sheets in all cases. Adjust quantities accordingly.

FASTENINGS:

Screws: Flathead wood type, bronze or hot dipped galvanized

- 3/4" #8 - 1 gross
- 1" #8 - 3 gross
- 1-1/4" #8 - 5 gross
- 1-1/2" #8 - 1 gross
- 2" #10 - 1 gross
- 3" #14 - 2 1/2 dozen

Nails: Ring type boat nails, bronze or Monel

- 3/4" - 1/2 pounds
- 1-1/4" - 3 pounds

Carriage Bolts: Bronze or hot dipped galvanized complete with nuts and washers. Check all lengths to work.

- 3/8" x 6" - 4 required - keel to stem
- 3/8" x 4" - 8 required - motor stringer blocking
- 3/8" x 4" - 8 required - blocking to transom and bulkhead A

Glue: Epoxy - 3 gallons