

Cracker Box 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 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:			
Frames	Mahog, Oak or SP	50 Random-random bd ft. 1" material	
Motor Stringers	DF	2	2" x 6" x 12'

Battens	Mahog, Oak or SP	6	1" x 2" x 12'
Keel	Mahog, Oak or SP	2	1" x 4" x 12'
Chine	Mahog, Oak or SP	2	1" x 2" x 16'
Sheer	Mahog, Oak or SP	4	3/4" x 1-1/2" x 16'

PLYWOOD:

Gussets	DF Ext AB	1	1/4" x 4' x 8'
* Transom	DF Ext AB	1	3/8" x 4' x 8'
* Stem & breasthook	DF Ext AB	1	3/4" x 4' x 8'
Side planking	DF MAR AA	2	1/4" x 4' x 16'***
Bottom planking	DF MAR AA	4	1/4" x 4' x 16'***

* Note: By carefully cutting a single piece of 3/8" PW will suffice for the stem, breasthook and transom. This, however, will require four laminations to make the required thickness for the stem and breasthook.

** Standard lumberyard size.

*** Check instructions for optional use of 8' long panels.

FASTENINGS:

Screws: Flathead wood type, bronze or hot dipped galvanized

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

Nails: Ring type boat nails, bronze or Monel

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

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

- 1/4" - 48 required (motor stringer blocking)
- 5/16" - 2 required (keel to stem)

Glue: Epoxy - 2 gallons
