

Klondike

Fiberglass Bill of Materials

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The following material listing is an estimate of the materials required to build the basic hull of the vessel. The material listing is intended to serve as a general guide only and should not be used to purchase materials until the various options and alternatives have been checked to the plans and to the work. The hull construction materials are based on the square footage of the hull and may vary somewhat depending on the materials used and how they are utilized. The figures listed include an overage factor, however it is probable that more materials may be required due to waste, defects, sizes and types of material available, etc. The listing does not include materials for the cabin structure or joinerywork due to the many possible variations in both the plans as well as the owner's desires. In all cases, check the plans and instructions for options.

HULL MATERIAL LISTING - FIBERGLASS PLANKING METHOD:

- Fiberglass planking "CF-65", 12" wide x lineal feet: 1250'
- Fiberglass mat 1 oz. per square foot: 708 lbs. or 11,330 sq. ft.
- Fiberglass woven roving 18 oz. per square yard: 1245 lbs. or 9960 sq. ft.
- Polyester resin w/catalyst: 9 drums (55 gal. size) or approx 4500 lbs. net
Approx. 45 gals. or 450 lbs. non-thixotropic laminating resin for fiberglass planking initial coat.

HULL MATERIAL LISTING - FOAM SANDWICH METHOD:

- Foam material (PVC) 3/4" thick x 3' x 6': 66 sheets
- Fiberglass mat 1 oz. per square foot: 666 lbs. or 10,655 sq. ft.
- Fiberglass woven roving, 18 oz per sq. yard: 1160 lbs. or 9280 sq. ft.
- Polyester resin w/catalyst: 9 drums (55 gal. size) or approx. 4500 lbs. net

Klondike-Plywood 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. On a project this size it is always desirable to purchase a reasonable

amount of materials initially and purchase additional material as it is required. This will enable many left over pieces to be utilized in the construction with much less waste. Lumber is listed in lumberyard sizes while the Plan Sheets give NET dimensions after milling, so there will appear to be a discrepancy. For example, stock listed as 2" thick in this bill of materials will usually finish to 1 1/2" to 1 3/4" (as in the plans), depending on the type of wood. Unless noted otherwise, a minor variation in thickness, plus or minus 1/8" is not critical. The width dimensions (second figure listed) of Douglas-fir will actually be somewhat less than the listed dimension, while for hardwoods, the width figure would be NET. This is due to the manner in which these materials are milled and marketed. All lumber used should be first grade free from shakes and knots. Mahogany (dark red Philippine type or Honduras), Douglas-fir, and white oak 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 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 epoxy, plastic resin, resorcinol, 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; DF = Douglas-fir; PW=plywood; Ext=exterior; MAR=marine.

ITEM	MATERIAL	NO. PCS.	SIZE
LUMBER:			
Deadwood*	Oak, Mahog or DF	1 1 1 3 1 1 1 1 1	6" x 8" x 18' 8" x 8" x 2'-6" 8" x 8" x 8'-0" 8" x 8" x 16' 8" x 8" x 19' 8" x 8" x 21' 8" x 8" x 23' 8" x 8" x 5'-0"

Stem & stem knee	Oak, Mahog or DF	1 2	4" x 14" x 11' 4" x 12" x 4'
Stem cap laminations	Oak, Mahog or DF	4	1" x 3" x 17'
Keel	Oak, Mahog or DF	2	2" x 12" x 40'
Keel filler strake	Oak, Mahog or DF	1	1 1/4" x 8" x 5'
Transom knee**	Oak, Mahog or DF	1	6" x 12" x 3'
Frame members (bottom, side, & deck beam members)	Oak, Mahog or DF	3 3 11 3 3 3 1 5 2 4 1	2" x 4" x 12' 2" x 4" x 16' 2" x 6" x 12' 2" x 6" x 14' 2" x 6" x 16' 2" x 6" x 18' 2" x 6" x 20' 2" x 8" x 16' 2" x 10" x 14' 2" x 10" x 16'
Floor timbers	Oak, Mahog or DF	1 1 1 1	3" x 10" x 16' 3" x 12" x 8' 3" x 12" x 16' 3" x 14" x 16'
Engine stringers	Oak, Mahog or DF	2	4" x 10" x 22'
Engine stringer blocking	Oak, Mahog or DF	2	3" x 3" x 16'
Transom uprights	Oak, Mahog or DF	2	2" x 6" x 5'
Chine logs	Oak, Mahog or DF	2	2" x 5" x 48'
Spray rails	Oak, Mahog or DF	2	1" x 3" x 48'
Sheer clamps	Oak, Mahog or DF	6	1" x 3" x 50'
Rub rails	Oak, Mahog or DF	2 4	2" x 3" x 50' 1' x 3" x 50'
Guards	Oak, Mahog or DF	2	3" x 4" x 12'
Side battens	Oak, Mahog or DF	2	1 1/4" x 3" x 28'
Cockpit sole clamp	Oak, Mahog or DF	2	2" x 3" x 23'
Bottom battens	Oak, Mahog or DF	4 2 2 2	2" x 4" x 46' 2" x 4" x 42' 2" x 4" x 36' 2" x 4" x 30'
Carlings	Oak, Mahog or DF	2 2 2	3" x 4" x 17' 3" x 6" x 9' 3" x 8" x 11'
Shelf	Oak, Mahog or DF	2	2" x 2" x 11'
Bulwark clamp	Oak, Mahog or DF	2	1" x 2" x 29'

		2	1" x 2" x 24'
Bulwark cleat	Oak, Mahog or DF	2	1" x 10" x 29'
		2	1 1/4" x 4" x 24'
PLYWOOD:			
Side & bottom planking***	DF MAR AA or AB	94	3/8" x 4' x 8'
Bulwark planking	DF Ext AB	2	3/4" x 4' x 12'
		3	3/4" x 4' x 14'
Gussets/floor timbers	DF Ext AB	6	3/4" x 4' x 8'
Stem siding	DF Ext AB	3	3/4" x 4' x 8'
Structural bulkheads	DF Ext AB	12	3/4" x 4' x 8'
Transom +	DF Ext AB	2	3/4" x 5' x 14'
<p>* Deadwood may be built up progressively using laminations of 1" to 2" thick members laid flat in widths to suit in lieu of above.</p> <p>** Transom knee may be built up with thinner and solid wood members scabbed on each side with 3/4" plywood laminations in lieu of above.</p> <p>*** Some builders may wish to use DF Ext AB PW for the planking. This is sometimes satisfactory, however, the material must be free of major voids, used where bending is minimal, and where patches or plugged areas will not be exposed to moisture. In any case Marine grade is superior.</p> <p>+ 4' x 8' panels can be butt joined and overlapped as required to cover the area in lieu of the above.</p>			