

Fred Murphy

Plywood Bill of Materials

MATERIAL LISTING: MATERIAL LISTING: The listing is an approximation that can be used for basic hull cost estimates; it is not meant to be used for buying materials without first checking the instructions and plans for various options which may vary the listing, and to local suppliers for what material sizes may be available. Each builder should make decisions as to how he will use materials, and then take off a listing to suit. As a cost savings, materials should be grouped for resawing to the sizes required rather than purchased individually as listed.

PLYWOOD: All plywood should be at least AB Exterior or Marine grade; Interior plywood is not acceptable. Douglas fir or Mahogany-type panels will suffice.

LUMBER: All lumber should be top quality, free from defects, and of types proven in use in boats. Suitable woods include Sitka spruce, vertical grain Douglas fir, mahogany (including Philippine, Honduras, and African types), white oak, and comparable woods of good quality. Total lengths allow some overage for trimming, etc., but the breakdown for number of pieces should be checked to the plans and matched to lengths of stock available.

LUMBER DIMENSIONS: Lumber thicknesses are given as nominal except where noted "net" or those listed as less than 1". Do NOT custom mill any lumber except those noted "net" or less than 1". Purchase lumber as it comes from the lumberyard. The first dimension is the thickness, but true thickness will be somewhat less than nominal for 1" to thicker listings. For example, lumber listed 1" will actually be about 3/4", while 2" lumber will actually be about 1-1/2" net. The second dimension is the width - this is to be actual or "net" size except that members 2" thick can be nominal in BOTH thickness and width. In other words, a 2" x 4" member will actually be about 1-1/2" x 3-1/2" - buy it and use it this way. Such listed sizes are meant to save the builder money and work.

ITEM	SIZE	NO. PCS.	
LUMBER:			

Framing	2" x 3" 2" x 4" 2" x 5" 2" x 6" 2" x 8"	140' 6' 8' 30' 26'	
Keel	1" x 6" x 22'	2	
Chine logs	1-1/4" x 2-1/4" x 24'	2	
Bottom battens	1" x 2-1/2" x 18' 1" x 2-1/2" x 21' 1" x 2-1/2" x 24' 1" x 2-1/2" x 25'	2 2	
Sheer clamps	5/8" NET x 1-1/2" x 25'	4	
Deck battens	1" x 4" x 4' 1" X 6" x 8' 1" x 2" x 8' 1" x 1" x 23'	1 1 6 2	
Carlings	1" x 3-1/2" x 13' *	2	
Cabin clamps	1" x 3-1/2" x 13' *	2	
Rub rails	1/2" NET x 2" x 30'	4	
Cap rail clamps	1/2" NET x 2" x 30'	8	
Cap rail	1" x 4-1/4" x 30' *	2	
Bulwark framing	1" net x 1" x 60' *		
Bulwark uprights	2" x 2" x 12"	16	
Motor stringers	2" x 8" x 9'	2	
Skeg laminations	Varies with layer thickness used x 4" wide max.		
Skeg/stem cap laminations	See plans		

* Use wider stock for sawing to width.

PLYWOOD:

ITEM	SIZE	NO. PCS.	
Stem, breasthooks, harpins, sternpost	3/4" x 4' x 8'	4	
Bottom planking	3/8" x 4' x 26'	4 (*)(**)	
Side/bulwark planking	1/2" X 4' x 30'	2 (*)(**)	
Decking	5/8" x 4' x 8'	10	
Gussets, floor timbers	5/8" x 4' x 8'	2	
Keel inner layer	1/2" x 4' x 8'	1	

(*) See plans for size/thickness and other options

(**) See plans for joining methods to permit other panel lengths

Adhesives: Epoxy adhesives are advised throughout the construction. These may be an epoxy adhesive or epoxy resin. Epoxy resins should be used with thickeners (silica or equal) per the instructions with the resin and/or thickening agent. Due to the noted options, the amount required is difficult to estimate. Start with a gallon container of epoxy and after use you will be better able to estimate the total amount required.