

Atlantic Skiff Bill of Materials

LUMBER & PLYWOOD: All plywood must be intended for marine or exterior use; interior grades are not acceptable. The marine grade panel features higher grade inner ply cores, while the exterior plywood grade cores may have voids not apparent to the eye, and may also use cores made from woods not as suitable for marine applications. In most cases, the glues used in both the marine and exterior panels are the same waterproof type, however, the decision to use exterior panels in lieu of marine panels must lie with the builder, considering the particular use of the panel in the boat and the expected service. The letters A, B and C designate the grade of the exterior veneers with A grade the best, etc. Douglas-fir plywood is acceptable for all plywood, although mahogany or other attractive veneers are preferable in many instances as described in these instructions. All lumber used should be first grade, free from knots, shakes, checks, or other defects. All widths are actual size except for lumber 2" in thickness where widths are also nominal. All thicknesses are standard finished sizes, with 1" lumber being four quarters material, usually finished to about 3/4". Grouping lumber and purchasing "random-random" material to resaw to the required size will result in considerable savings. All lumber sizes should be checked to the work before purchasing wherever possible. Lumber typical to the locale and proven in use in boats of similar type can be used as long as the weight, strengths, and characteristics are similar. Suitable boatbuilding woods include white oak, mahogany (Mahog.- Philippine dark red, American, or African types commonly used in boats), Sitka spruce (SSP), Alaskan cedar, Port Orford cedar, Douglas-fir (DF), longleaf yellow pine, apitong, and teak.

HULL MATERIAL LISTING: The following material listing is an estimate of the materials required to build the basic hull. 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, to the work, and to the materials which may be available in the area in which the hull will be built. The listing may vary due to the amount of waste and other variables that cannot be controlled.

ITEM	SIZE	NO. PCS.
LUMBER:		
Framing members	"Five-quarter" stock to finished thickness noted 5" wide – 130' 2" wide – 30' 6" wide – 47' 9" wide – 12'	

Floor timbers	- "Eight-quarter" nom. stock to finished thickness noted, widths between 7" and 12"	40 BD.FT.
Keel	3/4" NET x 5"	36' (*)
Bottom battens	3/4" NET x 3"	120'
Chine logs	1-1/8" NET x 3"	52'
Sheer clamps	3/4" NET x 3-1/2"	104'(*)
Motor stringers	3/4" NET x 6"	68' (*)
Motor stringer blocking	1-1/2" NET x 1-1/2"	20'
Motor stringer uprights at transom	1-1/2" NET x 4"	6'
Stem core	1" NET x 6" 1" NET x 12"	6' 12'
Carlings	1-1/2" NET x 1-1/2"	38'
Coaming	3/4" x 5"	50'(*)
Deck battens	1" x 2" 1" x 2-1/2" 1" x 3"	8' 26' 7'
Side battens (if using opt. double diagonal side planking)	3/4" x 1-1/2"	220'
Side planking (strip planking option)	3/4" NET sufficient to cover 150 sq.ft.(*)	
Skeg - Varies with options - See plans	Thicknesses to suit x 2-1/2" wide (*)	

(* See heading in text for variable and options.

PLYWOOD:

ITEM	SIZE	NO. PCS.
Stem, breasthook, transom, floor timbers	3/4" x 4' x 8'	3
Gussets	1/2" x 4' x 8'	2
Bulkheads	3/8" x 4' x 8'	2
Bottom planking	2 layers 3/8" sufficient to cover 160 sq.ft. per (*)	
Decking	1/2" x 4' x 8'	4
Cockpit sole/forward step top	1/2" x 4' x 8'	5
Side planking (if using optional double diagonal)	2 layers 1/4" sufficient to cover 150 sq.ft. per (*)	

FASTENING SCHEDULE: The listing suggests the size, type, and spacing or number required of fastenings for various junctions of the basic hull. The listing can be varied by the builder as required to assure sound, strong junctions. Due to the variations and options available, it is not practical to list every junction for every option, especially since many fastenings, such as those used for the planking application can be of a temporary nature (in the case of double diagonal planking), or lesser non-marine quality (such as the finish nails used for strip planking) - these fastenings are not listed. However, from the listing, the builder should be able to make interpolations. Screws should be flat head wood types. In some cases, it will be desirable to counterbore these for greater holding power or for building convenience. Bolts should be carriage bolts or threaded rods with nuts jammed on for heads. Bolt lengths must be taken from the work. However, bolt heads and nuts can be counterbored and recessed somewhat to take advantage of shorter length bolts. Nails are ring-type boat nails with pilot holes pre-drilled first. Screws can be used in place of nails in all cases. Air-driven temporary staples may be used in the double diagonal planking installation for convenience, but if not of non-corrosive material, should be removed once the glue cures. Final fastenings should still be installed as listed.

JUNCTION	SIZE	TYPE	SPACING/NO.RQD.
Transom to framing	1-1/2" #8	Screws	6" apart
Transom bottom frame lamination	2" #10	Screws	6" apart
Frames to wood floor timbers	2-1/2" #12	Screws	6 min. per junction
Ply floor timbers to frames	1-1/2" #8	Screws	6 min. per junction
Gussets to frames	1-1/4" #8	Screws	5 min. per junction
Stem laminations	1-1/2"	Nails	6" apart
Breasthook laminations	1-1/2"	Nails	3"-4" apart
Breasthook to stem	3" #14	Screws	2 min.
Floor timbers to stem	3" #14	Screws	4 per junction
Deck beams to frames	2" #10	Screws	2 per junction
Bulkhead to frames	1-1/4"	Nails	3"-4" apart
Keel first layer to frames & stem	3" #14	Screws	2 min. per junction
Keel lamination	1-1/2" #8	Screws	6" apart
Keel to stem	3/8"	Bolts (*)	3 total
Side & bottom battens/frames & transom	2" #10	Screws	2 per junction

Chine logs to stem/transom	3" #14	Screws	2 per junction
Chine logs to frames	3" #14	Screws	1 per junction
Sheer clamp - 1st layer @ breasthook	2-1/2" #12	Screws	3 per junction
Sheer clamp - 1st layer @ frames/transom	2-1/2" #12	Screws	2 per junction
Sheer clamp - 2nd to first layer	1-1/4" #8"	Screws	4"-6" apart
Carling to frame junctions	2" #10	Screws	2 per junction
Coaming to carlings/frames	2" #10	Screws	2 per junction/6" apart
Motor stringer laminations	1-1/4"	Nails	4"-6" apart
Motor stringer/blocking junctions	5/16"	Bolts (*)	2 per junction
Dbl diag side planking - 1st at all points	1"	Nails	2"-6" apart
Dbl diag side planking @ stem/transom	2" #10	Screws	2"-3" apart
Dbl diag side planking @ sheer/chine	1-1/2" #8	Screws	3"-4" apart
Dbl diag side planking @ battens/frames	1-1/4" #8	Screws	4"-6" apart
Bottom planking-1st layer all points	1" min.	Nails	2"-6" apart
Bottom planking-final @ stem & transom	2" #10	Screws	2" apart

Bottom planking-final @ chine & keel	2" #10	Screws	3"-4" apart
Bottom planking-final @ battens/frames	1-1/2"	Nails	2"-6" apart
Decking perimeters	1-1/4" #8	Screws	3"-4" apart
Decking at inner members	1-1/4" #8	Screws	6" apart
Skeg to hull	3/8"	Bolts (*)	Per plans
(*) Threaded rod with nuts jammed on to form heads optional; length to suit.			

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.

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