

# BUILDING THE GLEN-L "TUG ALONG 16"

## BILL OF MATERIALS

**LUMBER:** Do NOT purchase any lumber until you read this section. This listing is for the basic hull only--interior joinery and cabin structure is not listed. All lumber thickness specified should be purchased as standard lumberyard stock finished as full as possible. As an example, 1" stock is NOT to be a net thickness of 1". Stock 1" thick refers to lumber purchased as "four quarters" or 1" material that will finish from 3/4" to 7/8" in net or actual thickness. Widths, however, are noted as "net" unless specified otherwise. (Exception: All 2" thick stock is lumberyard size in both thickness and width.) Stock listed as 1" x 3/4" is to be ripped from standard 1" material. All lengths allow for trimming to fit. Purchasing random-random material to re-saw to the required size will result in considerable savings. Some suitable boatbuilding woods include mahogany, (dark red) Philippine, Honduras, or African, clear vertical grain Douglas-fir, Sitka spruce, white oak or longleaf yellow pine. Similar woods, available in the building locale and common to boatbuilding, may be substituted at the discretion of the builder. Check all listings to the work prior to purchasing materials.

**MATERIAL ABBREVIATIONS:** DF= Douglas-fir; PW = plywood; Ext = exterior; Mar = marine; Mahog = mahogany;

ITEM	MATERIAL	NO.PCS	SIZE
Keel	Mahog	1	1" x 3" x 13'
Battens	Mahog	2	1" x 3" x 12'
Tunnel batten	Mahog	1	1" x 3" x 4' –makes two
MW BH base cleat	Mahog	1	1" x 1 1/4" x 6'
BH base cleat	Mahog	1	1" x 1 1/4" x 6'
MW uprights	DF	1	2" x 2" x 3' -makes two
MW cleats	Mahog	1	1" X 1 1/4" x 16' –makes all
Fwd deck beam	Mahog	1	1" x 3" x 5'
Strongback	DF	1	2" x 3" x 3'
Carling	Mahog	2	1" x 6" x 9'
Skeg	DF	1	2" x 6" x 12'

**PLYWOOD:** All plywood must be intended for marine or exterior use. Interior grades are NOT acceptable. Marine plywood has higher grade inner ply cores, while the exterior grade cores may be of inferior material and have inner voids not apparent to the eye. In most cases, the glues used in both marine and exterior panels are the same, however, the decision to use exterior in lieu of marine panels for planking must lie with the builder. Most exterior plywood is not the actual listed thickness; it is classed as "scant" and is a fraction less than full thickness. Take care if mixing marine and exterior panels that must butt join. Marine plywood is recommended, especially for the planking. Douglas-fir plywood is acceptable in all cases although other species of suitable grade may be used alternately. The letters A, B, and C identifies the grade of the plywood panel veneers. For planking, the A-A (best) grade is desirable. The best face of all panels should be the one exposed. Check the PLYWOOD LAYOUT, pattern sheet 1 of 2, and the text for utilization of the listed plywood. Abbreviations used in the following chart are DF= Douglas fir, Mar= marine. Ext = exterior.

LAYOUT NO.	TYPE	NO. PCS	SIZE
Layout 1	DF Mar or Ext AA or AB	1	3/8" x 4' x 8'
Layout 2	DF Mar or Ext AA or AB	2	3/8" x 4' x 8'
Layout 3	DF Mar or Ext AA or AB	2	3/8" x 4' x 8'
Layout 4	DF Mar or Mar AA or AB	2	3/8" x 4' x 8'

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Layout 5	Mar or Ext AB or AB	2	3/8" x 4' x 8'
Decking	Ext AA or AB	2	3/8" x 4' x 8'
#4 Stern Arc	Mar or Ext AA or AB	2	1/4" x 4' x 8'
Transom & MB	Ext AA or AB	1	3/4" x 4' x 4'

**\*FASTENINGS:** All permanent fastenings should be of a non-corrosive type. Nails refer to silicon bronze ring shank boat nails. Screws are a flat head wood type, preferably silicon bronze. Electroplated steel and brass fasteners are NOT advised.

**\* SCREWS:** Wood type, flat head bronze.

1" #8	150
1 1/4" #8	300
1 1/2" #8	36
3" #14	36

**\*NAILS:** Ring type boat nails, silicon bronze.

1" #12	1 lb.
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**\*STITCHING WIRE:** Copper wire 12 or 14 ga.

50 lineal feet

**\*FIBERGLASS TAPE:** Tape refers to standard fiberglass E-glass, 6-8 oz. marine treated strips that may be commercially purchased or fiberglass cloth cut in strips preferably at a 45 degree angle so the strands of fiberglass cross the seam being reinforced rather than parallel them.

3" wide tape – 31 yds.

6" wide tape – 45 yds.

**\*BI-AXIAL FIBERGLASS TAPE:** For interior and exterior. Tape or cloth (listed), 18 oz. per square yd.

50" cloth cut into 5" wide strips – 6 tds.

**GLUE:** All permanent joints should be glued with epoxy adhesives intended for wooden boat use. This may be epoxy resin with additives or epoxy glue.

**EPOXY RESIN:** For gluing, laminate application, epoxy encapsulation & resin putty.

**\* INTERIOR – 3 gal.- POXY-SHIELD #2 Slow**

**\*\* EXTERIOR - (Includes fiberglassing)- 6 gallons POXY-SHIELD #3 Slow**

**\*MICROSPHERES** (or equal)

1 lb.

**\*SILICA** 1 lb.

**\*\*FIBERGLASS CLOTH:** For exterior sheathing, 6-8 oz. treated boat type.

11 yds. - 50" width

(covers each half of bottom lapping at centerline and perimeter\*\*\*)

13 yds.

- 38" width (use 38" width for each side)

\*\*\*Use scrap for bulwark and tunnel inside.

\*These items are contained in the GLEN-L **STITCH-n-GLUE KIT** plus application tools, squeegees, brushes, and rollers.

\*\*These items are contained in the GLEN-L **FIBERGLASS COVERING KIT** plus application tools, squeegees, brushes, and rollers.