

Lo Voltage Bill of Materials

DO NOT PURCHASE ANY MATERIAL UNTIL YOU READ THIS SECTION.

LUMBER: White oak, mahogany (Philippine or Honduras), spruce, or similar types of wood common to the area for boatbuilding can be used. The wood should be knot free (small solid ones are permissible), properly dried, and free of splits. Lumber designated as 1" is "four quarters" lumberyard stock, usually finished to 3/4" net thickness. All widths are NET and the noted lengths allow for cutting to fit.

PLYWOOD: All plywood must be intended for marine or exterior use. Interior grades are NOT acceptable. Marine plywood has higher grade inner plies, while the exterior grade cores may be of inferior material with inner voids not apparent to the eye. In most cases, the glues used in both marine and exterior panels are the same. A solid core marine grade is preferable, although an exterior grade can be used with the understanding that unseen interior voids may cause problems. Douglas-fir plywood is acceptable, but high quality Okoume, mahogany, or other decorative veneer (usually imports) are preferable. The grade of the exterior veneer of plywood panels is identified by the letters A, B, and C with A being best, etc. The best face of all panels should be the one exposed. Any patches on lower grade veneers should be on the interior, especially on the forward bottom. Check the PLYWOOD LAYOUT on the Full Size Pattern sheet 1 of 2 for method of utilizing the listed plywood to obtain the various parts.

LUMBER: NOTE: The following listing is for the basic hull only of the LO VOLTAGE for ELECTRIC DRIVE with curved transom. The types of lumber listed are as used on the prototype; spruce for light weight and mahogany for appearance. As stated in the prologue, other species can be substituted. Although the sizes are noted individually, it is best to group the lumber, purchase "random/random" (varying widths and lengths) lumberyard stock, and rip and trim to the required sizes.

CHECK ALL SIZES TO THE WORK PRIOR TO CUTTING.

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

ITEM	MATERIAL	NO. PCS	SIZE
Bottom interior stringers	Sp or Mahog	2	1"x 3"x 5'
Transom Arc #11A-1	Sp or Mahog	2	1"x 5"x 2'

Scab for above	Sp or Mahog	1	1"x 3"x 1'
Cleats for #15 and #17	Sp or Mahog	makes 4	1"x 1" x 7'
Cleat for #16	Sp or Mahog	2	1"x 1 1/2"x 6'
Breasthook #18	Mahog	1	1"x 10"x 12"
Transom beam	Sp or Mahog	1	1"x 1 1/2"x 3'4"
Cleat for above	Sp or Mahog	1	1"x 1" x 2' 8"
Beam #20	Sp or Mahog	1	1"x 3 1/2"x 4'6"
Beams #21 - #26	Sp or Mahog	makes all	1"x 4"x 4'
Forward seat beam	Sp or Mahog	1	1"x 2 1/2"x 3'
Seat strongback	Sp or Mahog	1	1"x 1 1/2"x 3'
Upright at Seat Side ending	Sp or Mahog	2	1"x 2 1/2"x 1'
Sheer	Mahog. or Oak	2	1"x 1 1/2"x 16'
Deck strongback	Sp or Mahog	1	1"x 1 1/4"x 2'
Side deck lams	Mahog	12	1"x 5/8"x 16'
Aft deck lams	Mahog	approx. 150 lineal feet (ADD 9 lineal feet if not using deck vee member)	1"x 5/8"x varies
Aft deck vee member	Mahog	1	1" X 8 1/2" X 14"
Finishing board	Mahog	1 (makes 2)	2"x 9"x 2' 4"
Skeg	Mahog or Oak	1	1"x 2 1/2"x 8'

PLYWOOD: See PLYWOOD LAYOUT on pattern sheet 1 of 2.

PANEL I	Ext. DF AB or Mar. AA	1	1/4"x 4'x 8'
PANEL II	Ext. DF AB or Mar. AA	2	1/4"x 4'x 8'
PANEL III	Ext. DF AB or Mar. AA	2	1/4"x 4'x 8'
PANEL IV	Ext. DF AB	1	1/4"x 4'x 8'

***STITCHING WIRE:** Copper wire 12 or 14 ga. - 50 lineal feet

***MICROSPHERES:** (or equal) - 1 lb.

***SILICA:** - 1 lb.

FIBERGLASS: All fiberglass cloth is to be marine grade, Volan treated "E", 6-8 oz.; bi-axial fiberglass is 18 oz. per square yard.

***FIBERGLASS TAPE:** For interior junctions per the LAM SCHED.

Cut at 45 degree bias from cloth 38" wide - 6 yds. reqd. NOTE: If not fiberglassing the outside,

add 3 yards 38" cloth. Cut at 45° bias, and apply over bi-axial tape on the exterior.

***BI-AXIAL FIBERGLASS TAPE:** For Interior and Exterior junctions per the LAM SCHED.

Cut from bi-axial cloth 50" wide - 3 1/2 yds. reqd.

****FIBERGLASS CLOTH:** For covering exterior - 17 yds. (51') 38" cloth

Use 15' of 38" cloth centered on the bottom, lapping the transom 3" to 4". Cover the transom, lapping the side and bottom 3" to 4". Divide the balance of the 38" cloth equally between the two sides, lapping over the previously applied cloth and stem about 3" to 4".

"POXY-SHIELD" SLOW EPOXY RESIN:

- *For encapsulating, resin putty fillets, gluing, and applying interior and exterior tape - 2 1/2 gallons.
- **For EXTERIOR fiberglass covering - 1 1/2 gallons.

NOTE: Resin quantities assume that waste will be minimal.

***FASTENERS:**

- SCREWS: refers to flat head wood type bronze.
- 3/4" #8 screws - 6 dozen
- 1" #8 screws - 9 dozen
- 1 1/4" #8 screws - 2 dozen
- 1 1/2" #8 screws - 2 dozen

- NAILS: refers to ring type bronze boat nails
- 3/4" #14 nails - 100 required

* The GLEN-L LO VOLTAGE STITCH and GLUE KIT A includes all of these items PLUS brushes, squeegees, and rollers for application. STITCH and GLUE KIT B includes everything in KIT A plus 3 yds. of 38" cloth for exterior seams. (If you cover the outside with fiberglass, use KIT A.)

** The GLEN-L LO VOLTAGE FIBERGLASS COVERING KIT includes all of these items PLUS brushes, squeegees, and rollers for application.