

# Thunderbolt 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. All lumber listed as 1" stock is to be standard "lumberyard four-quarter" material which when finished may vary to somewhat less or slightly more than 3/4" in thickness, unless specified as NET. All widths are NET and all lengths allow for cutting to fit. Grouping lumber and purchasing random-random material to resaw to the required size will result in considerable savings. All lumber used should be first grade free from shakes and knots. Although oak (white oak), spruce (Sitka), and mahogany (dark red Philippine type) 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 plywood should be a minimum of three plies. 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 plastic resin, resorcinol, epoxy, 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; SP = Spruce; DF = Douglas-fir; PW=plywood; Ext=exterior; MAR=marine.

ITEM	MATERIAL	NO. PCS.	SIZE
<b>LUMBER:</b>			
Frames-"Four Quarters Material"	Mahog, Oak or SP		80 bd ft. random widths and lengths

Motor stringers	Mahog, Oak or SP	2	1" Net x 6" x 12'
Motor stringer blocking	Oak	1	1" x 3" x 8'
Keel	Mahog, Oak or SP	1	1" x 4" x 13'
Chine logs	Mahog, Oak or SP	2	1" x 2-1/4" x 18'
Sheer clamps	Mahog, Oak or SP	4	5/8" x 1-1/2" x 18'
Battens, bottom	Mahog, Oak or SP	2 2 2	1" x 3" x 13' 1" x 3" x 12' 1" x 3" x 10'
Dash beam	Mahog	1	1" x 6" x 6'
Aft deck beam	Mahog or SP	1	1" x 7" x 6'
Deck battens	Mahog or SP	2	1" x 2" x 6'
Strongback	Mahog or SP	1	1" x 3" x 8'
Side deck batten	Mahog or SP	2	1" x 1" x 18'
Carling	Mahog or SP	2	1" x 5" x 13'
Coaming	Mahog	2	1" x 6" x 9'

**PLYWOOD:**

Frame gussets, transom	DF Ext AB	1	1/4" or 3/8" x 4' x 8'
Motor stringer & keel lams.	DF Ext AB	1	3/8" x 4' x 8'
Stem, breasthook & #7 floor timber	DF Ext AB	1	3/4" x 3' x 8'
Side planking	DF MAR AA	1	1/4" x 4' x 18'***
Bottom planking	DF MAR AA	2	3/8" x 3' x 18'***
Side decking	DF Ext AB	2	1/4" x 4' x 8'
Forward decking	Mahog Ext strips	1	1/4" x 4' x 8'

\*\*\* 4' x 8' sheets can be substituted in all cases. Adjust quantities accordingly.

**FASTENINGS:**

- Screws: Flathead wood type, bronze or hot dipped galvanized
- 3/4" #8 - 2 gross
- 1" #8 - 5 gross
- 1-1/4" #8 - 1 gross
- 1-1/2" #8 - 1 gross
- 2" #10 - 2 gross
- Nails: Ring type boat nails, bronze, stainless steel or Monel
- 1" - 4 pounds
- 1-1/4" - 1 pound
- Carriage Bolts: Bronze or hot dipped galvanized complete with nuts and washers. Check lengths to work.

- 1/4" x 6" - 2 required
- 1/4" x varies - 44 required

**Glue:** Epoxy - 2 gallons