

Olympian 23 - Aluminum

Bill of Materials

The following listing is to serve as a general guide only for hull cost estimating purposes; do not use for buying materials without first checking the instructions and plans for various options (such as differences due to changes in powering methods which will vary each boat), and to local suppliers for what material sizes may be available. In other words, each builder must make decisions as to how he will build the boat and use materials, and then take off a listing to suit. Note that if the length of the boat is varied, so too will the material listing. Materials are listed for the basic hull members only and do not include options, variations, cabin, interior members, etc. Thus the listing will vary and not all members are necessarily included - check the plans. Only marine alloy of the 5000- or 6000-series should be used. Common acceptable alloy designations include 5052, 5083, 5086, 5454, 5456, and 6061. For saltwater use, the 5086 is recommended at least for plating; extruded shapes can be 6000-series. While full-length hull plating panels can be formed by welding, single long panels are preferable to performing this procedure. In any case, the builder should check for plate or sheet size availability and plan the material utilization for minimum waste. While shorter members can always be butt welded to form long members, a doubler plate is usually advisable behind or on top of all such joints, lapping a considerable distance, and being welded all around.

MEMBERS	SIZE/TYPE	AMT RQD
Chine bars	1/2" round bar	44'
Stem	1/2" plate	5 sq. ft.
Keel	1/2" x 3"	17'
Side frames (angles)	3" x 2" x 1/4"	40'
Bottom frames	1/4" plate 1/4" x 2"	40 sq. ft. 75'

Beams	1/4" x 3"	15'
Bottom	3/16" x 4' x 22'	2
Sides	1/8" x 4' x 26'	2
Transom	3/16" x 5' x 9'	1
Decking	1/8"	70 sq. ft.
Stiffeners	1/4" x 2" 1/4" x 1-1/2"	250' 120'
Carling	1/4" x 2"	42'
Pipe	1-1/4" Sche. 40	30'
Tanks	1/8"	75 sq. ft.
Strakes	1/8"	60 sq. ft.