

# Aquarian Bill of Materials

The following is a general listing of the primary steel members required to build the vessel, including their description, sizes, lengths, and/or square footage. This listing is to serve as a general guide only, and is not meant to be all-inclusive. Hence, the builder should not use this listing to purchase materials without checking to the plans first to verify sizes and options. In all cases, the builder should check local sources in order to determine stock sizes of materials that may be available. How the members are obtained from the stock and the manner in which the material is utilized will vary to suit stock sizes of materials available in the locale where the boat will be built. This is why many members are listed by square footage. In other cases, members may be obtainable from flat bar, plate, or sheet material; it makes little difference in steel construction. Also, square footage or lineal footage may be given for contoured members which are cut to shape from plate or sheet stock, or could optionally be formed or bent from flat bar stock. Sizes and areas of materials generally include a factor for overage so that minor members not specifically noted can be obtained from scrap material.

| ITEM                      | SIZE                    | AMOUNT RQD.  |
|---------------------------|-------------------------|--------------|
| Keel base                 | 3/4" plate              | 12 sq. ft.   |
| Keel leading edge         | 3" O.D. 1/4" wall tube  | 6 lin. ft.   |
| Keel & transom stiffeners | 3/16" x 1-1/2" flat bar | 105 lin. ft. |
| Keel shell plating        | 3/16" plate             | 120 sq. ft.  |
| Bottom shell plating      | 3/16" plate             | 200 sq. ft.  |
| Side & transom plating    | 10 ga.                  | 380 sq. ft.  |

|                             |                            |              |
|-----------------------------|----------------------------|--------------|
| Hull stiffeners             | 3/16" x 1-3/4" flat bar    | 350 lin. ft. |
| Chine bars                  | 1/2" rd. bar               | 220 lin. ft. |
| Bulwark rail base           | 3/16" x 2" plate or bar    | 84 lin. ft.  |
| Stern tube                  | 2-1/4" O.D. 1/4" wall tube | 6 lin. ft.   |
| Mast step girder            | 1/4" plate                 | 10 sq. ft.   |
| Engine girders              | 1/4" plate                 | 6 sq. ft.    |
| Engine beds                 | 1/4" x 2" flat bar         | 20 lin. ft.  |
| Frames, floors & deck beams | 3/16" plate                | 110 sq. ft.  |
| Stem                        | 1/4" x 2-1/2" flat bar     | 9 lin. ft.   |
| Collision bulkhead          | 3/16" plate                | 10 sq. ft.   |
| Tanks                       | 11 ga.                     | 100 sq. ft.  |
| Cockpit & decking           | 10 ga.                     | 200 sq. ft.  |
| Deck stiffeners             | 3/16" x 1-1/2" flat bar    | 144 lin. ft. |
| Cockpit stiffeners          | 1/8" x 1-1/4" flat bar     | 22 lin. ft.  |

|                        |                         |             |
|------------------------|-------------------------|-------------|
| Carling                | 3/16" x 5" plate or bar | 54 lin. ft. |
| Rudder stock           | 2" O.D. 1/4" wall tube  | 7 lin. ft.  |
| Rudder plating         | 10 ga.                  | 18 sq. ft.  |
| Bowsprit (square tube) | 3" x 3" x 0.18" wall    | 8 lin. ft.  |