A hard top structure to provide a cover over the operation station of a boat is disclosed.
HARDTOP STRUCTURE FOR BOAT AND METHOD FOR MAKING THE STRUCTURE

BACKGROUND OF THE INVENTION

The present invention is directed to the field of structures that are added to the top surface of boats. Generally, the structures are located over the “bridge deck” area of the boat, typically encompassing the operator station of the boat. These structures are used to support a cover to provide shade and weather protection over the operator’s station as well as to support antennas and other items. These structures with covers are known generally in the art as “hardtops.”

The available “hardtops” or boat covers are fabricated from a cored fiberglass part molded with an inner and outer skin. The fabrication of available hardtops may be performed in a permanent mold, where an inner and outer shell are bonded together. At the higher price end of the recreational boat aftermarket, a temporary mold is made, and the hardtop is laminated with a balsa or synthetic core material between two layers of fiberglass. The hard top is then mounted on and supported by a welded metal structure usually aluminum. This type of construction is extremely labor intensive and as a result a hardtop for a small 25-26 foot boat will sell for $5-6,000 going up to $30,000 for boats in the 50-60 foot range. However, despite the cost, the appearance of this type of construction is the most sought after in the boat aftermarket.

A significant trend in structures on boats today is away from canvas or fabric tops to permanent hardtops. For the past 25 years or so hardtops have been manufactured in one of two ways. Before that they were typically wood, or wood covered with fiberglass.

Another method is a fiberglass panel or sheet of fiberglass supported by a structure of standard aluminum extrusion profiles. One of the difficulties with this construction is finishing the edge in a manner that looks professionally fabricated and not “homemade”. Among the prior methods were the use of moldings of various types including using a square or rectangular extrusion on the perimeter and a “J” molding to clamp the fiberglass to the top and “trim” the edge. The advantage to this method is that is relatively easy to make a wide variety of shapes and sizes without expensive molds or tooling. As a result, it is used widely but almost exclusively in the aftermarket.

SUMMARY OF THE INVENTION

The profiles of the present invention allow construction of hardtops with the ease of the second method and the look of the first. The resulting top is typically 1/5 to 1/2 the weight of cored glass tops, and about 1/5 to 1/2 the cost of manufacture.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a typical installation of a boat with a top installed over the operating station.
4. A method for fabricating a cover for a boat comprising the steps of:

(a) Providing a generally rectangular tubular frame for the cover wherein the tubular frame comprises a self-trimming edge in a perimeter of the tubular frame;

(b) Providing a rigid sheet with dimensions adapted to the dimensions of the tubular frame;

(c) Rigidly mounting the rigid sheet within the self-trimming edge in the perimeter of the tubular frame such that the sheet forms a generally flush outer edge with the tubular frame to form the cover;

(d) Attaching a pipe structure to a top deck surface of the boat; and

(e) Attaching the cover to the pipe structure.

5. The method of claim 4 wherein the self-trim edge comprises a notch.

6. A metal or plastic boat hardtop frame comprising a generally rectangular tubular frame comprising a self-trimming edge on its perimeter adapted to rigidly mount a rigid sheet therein.

7. The hardtop frame of claim 6 wherein the self-trimming edge comprises a notch.