



A simple to build, versatile classic flat bottom garvey, jon boat, duck boat.

Specifications:		
LOA:	15' 11"	4,85 m
Max. Beam:	5' 2"	1,58 m
Hull draft:	5"	12 cm
Hull weight:	165 lbs.	65 kg
Displacement at DWL:	1,310 lbs.	595 kg
PPI at DWL:	250 lbs.	115 kg
Recommended. HP	15	.
Material:	Stitch & Glue	.



The first GF was going to be a plain Jon boat but while researching some old designs, we discovered the lines of a classic garvey listed as a duck boat in the plans catalog of the Smithsonian. That beautiful hull shape could be adapted with some tinkering to our preferred material. We dropped the Jon boat look and redesigned the classic garvey, keeping the looks but with ease of construction as a top priority. Despite a common misconception, **a pretty boat is not more difficult to build than an ugly box.** This boat will do all what Jon boats do but look much better and have a higher resale value. It can also be used as a duck boat.

We designed the GF14 first and with a small change in the building method, we were able to increase the length to 16'.



Comparisons:

The GF16 is a flat bottom garvey. While this is easier to build, provides great stability and requires less HP for the same speed, it will not go through a chop as well as a vee hull. We minimized the pounding by keeping the strong bow curvature of the original design.

Compared to the GF14, the GF16 uses the same amount of plywood, see the building method notes below for an explanation.



Building method:

The boat is built in stitch and glue fashion but most of the hull, the bottom especially, is a true composite sandwich. The plywood bottom is sandwiched between layers of directional glass and it is the fiberglass that supplies most of the strength, not the plywood.

As in our other boats, the frames and seat tops are part of the structure.



The assembly method differs from the GF14. In the 16, the side and bottom panel parts are spliced together with fiberglass instead of a butt block. This leaves more plywood for longer panels. We get a longer hull but lose the advantage of the butt block used as a locator.

Required Skills:

As all our stitch and glue boats, the GF16 is easier to build than other plywood or fiberglass boats.

We worked hard to keep the building as simple as possible: most of the plywood cuts are straight lines, the nice curves are created by well planned bending around the frames.

All the plywood parts have been precisely calculated: you cut them flat on the floor, no need for templates, no need to take measurements from the hull framing as in the plywood on frame method.

This boat can be built fast by a first time builder. He should read our tutorials first but there is nothing difficult in the building method. No beveling, no tricky adjustments, no lofting at all, no calculations of any kind: we show dimensions for all the parts on the plans.



Options:

This is a simple boat with few options.

The bottom is already made of a strong 3/8" fiberglass sandwich but some builders may want to add layers. We don't see any good reason for that but it is possible.

One could adjust the size of the rear seat or the foredeck, eliminate the hatch that we show in the stern seat or change the forward access to a lid but that's about all.

As all of our boats, the GF16 can be made unsinkable with foam, see our kits.

This boat's transom is designed for a standard 20" shaft. The transom can easily be modified to accept other shaft lengths.



Bill Of Materials:

(Excerpts from our BOM)

The BOM list materials based on our standard layout and includes a 15% waste factor for fiberglass. For plywood, we use standard sheets 4' x 8' (122 x 244 cm). Please read the building notes and see the plans for detailed specifications. Meranti 6566 is an inexpensive type of marine ply ideal for stitch and glue construction.

Plywood 4x8' (122x244cm)		
1/4" (6mm)	4	
1/2" (12mm)	3	
Fiberglass (totals)		
Biaxial tape	30 yards	28 m
Biaxial fabric	14 yards	13 m
Resin		
Epoxy, total	3.5 gallons	14 liters



Labor:

The hull can be build in 20 hours but a finished boat will require 40 hours or more depending on the level of detail and the skills of the builder.



More:

Visit our message board, help pages, tutorial pages and read our FAQ: most questions are answered there.

Plans Packing List:

6 detailed drawings with all dimensions required to cut the side panels, bottom panels, bulkheads, seats and all parts from flat plywood sheets: no lofting, no templates required.

Nesting drawings for the best plywood layout, all parts nested.

Drawings list:

- B218_1: Plan and Profile, Specifications.
- D218_2: Plywood nesting for all parts.
- D218_3: Construction drawing with plan and profile sections. Typical fiberglass lamination detail. Frames and bulkheads dimensions. Detailed notes.
- D218_4: Developed dimensions for all hull panels (flat), seat tops, butt blocks, foredeck panel, outboard clamping board.
- B225_c: Detail drawing for seat locker lid with framing and assembly view.
- B221_c: Small Boat Electrical
- Specific building notes for this boat with Bill Of Materials.
- Help files reference list and more.