



Specifications:		
LOA:	18'-11"	5,85 m
Max. Beam:	7'-8"	2,34 m
Hull draft at DWL:	8"	203 mm
Displacement DWL:	1,900 lbs	864 kg
PPI at DWL:	425 lbs	193 kg
Hull only weight:	1,300 lbs.	591 kg
Fuel:	60 gallons	240 liters
HP	90 HP	125 max
Material:	Stitch & Glue	

All specifications are approximate and subject to changes in function of the mood of the designer and the skills of the builder . . .

The Pilot 19 (P19) is the vee hull version of our HM19. While the HM19 offers a maximum of stability and is very economical to build and operate thanks to it's dory type flat bottom hull, several builders requested a vee hull to handle choppy waters without pounding.

The vee hull will require more labor than the HM19 hull and also more horsepower to reach the same speed but she will keep going in bad weather while the HM19 will have to slow down.

The proven hull shape with a moderate vee similar to the C19 and CX19:45 degrees at the cutwater, 10 degrees at the transom. Sufficient deadrise to run smoothly in bad weather but moderate enough to provide good stability at slow speed without the wild roll typical of deeper vee hulls.



The generous freeboard and the classic sheer are also tried and true features contributing to seaworthiness. This boat will negotiate both head and following seas with ease. The P19 will require 90 HP to cruise in the low 30 mph range.

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

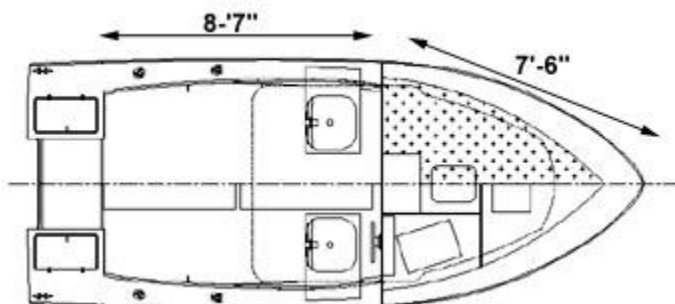


The self-bailing cockpit depth minimum 26" with 12" wide gunwales, is another important element of safety. Thanks to the freeboard and transom design, she can be rated to a max. capacity of eight persons (USCG) and we recommend engines in the 90 to 125 HP range. While stronger than the typical production fiberglass boat of that size, she is also lighter and does not require as much HP (or fuel) to cruise at the same speed.

Layout:

One can't offer standing headroom in that size boat without compromising stability and looks. An ugly boat is not

worth building. Some believe that boxy hulls have hidden qualities or are easier to build: not true. Looks and behavior go together: if she is pretty, most of the time she will handle well. If she is a bad boat, she usually looks like it. The pilothouse is just right: one can sit with good clearance above his head but see above it when standing in the cockpit.



From stern to bow:

Large lockers on each side of the motorwell can be used for storage or bait well. The self-bailing cockpit sole is high enough to stay above the waterline until the displacement reaches 3,300 lbs.

Under the cockpit floor, we show 60 gallons fixed fuel tanks.

Under the nicely cambered pilothouse roof, the rear frame of the pilothouse doubles as a grabrail.

The skipper will find enough room in front of the wheel to mount electronics and we use the extension of the cabin roof as a dashboard. The same surface on the port side can be a small chart table.

Access to the cabin is through an open companionway but feel free to install a sliding hatch.

The vee berth is 6' 6" long and a Porta-Potti slides under the mid section. On deck, the 8" wide gunwales extend all along the pilothouse and cabin side. Handrails on each roof helps circulation forward. A small toe rail runs all long the sheer line.

Building method:

The construction is epoxy-fiberglass-plywood composite, a second-generation stitch and glue system designed for efficient and fast building.

This building method combines the ease of stitch and glue (plywood-epoxy) with the strength, lightweight, longevity and low maintenance of a high tech composite hull.

The hull material is a fiberglass sandwich with a plywood core.

The builder assembles the hull as a plywood boat first, then build the outside and inside fiberglass skins to produce a strong composite hull without all the time consuming woodwork associated with plywood on frame.

We specify high performance directional glass and epoxy. While that type of fiberglass cost a little bit more, we save on resin and weight.

The bottom panels are more than 3/8" thick: thicker and stronger than the typical production fiberglass boat in that size.

The internal framing is characteristic of a fiberglass or composite boat: a monocoque structure made of interlocking bulkheads and stringers, tabbed to the hull and fiberglass chines and keel.

While the hull can be built without it, we strongly recommend building her upside down on a simple jig.



Our jig system is very uncomplicated, self-aligning and economical since we use the internal framing of the hull as molds. Our jig does not require all the precautions, alignments or even a perfectly flat floor that are a must for traditional boat building.

[See a complete hull building tutorial here.](#)

Required Skills:

As all our stitch and glue boats, the P19 is easier to build than other plywood or fiberglass boats. No woodworking skills or special tools are required. The plans include all dimensions and some full size patterns to cut all the hull parts flat on the shop floor. No scarfing required. While she can be build as a first project, some experience with our building methods will save time and materials. If you have never build a boat, try our free canoe plans first.

One of the reasons why our boats are easier to build is the level of details on the plans. For example, for the fuel system, we show not only the fuel tanks (standard part with part number) and their installation but fuel fill, fuel pick-up and fuel vent with part numbers, all in conformity with the ABYC and ISO regulations. Most other boat plans do not even show a fuel tank! We also show rigging tubes for electricity, controls and engine harness, inspection plates, removable fuel tank hatch, foam location between the stringers, hatches dimensions and part numbers, drainage of the casting deck hatches, make and part number for the swing back seat, rod holders in gunwale etc. etc.

All the plywood parts, even the smallest ones are shown with dimensions including cabin and pilot house parts.

Options:

There is room for a bench in the rear if one needs more seating.

Under the gunwales, the frames can be cut to act as rod holders. There is ample storage room in the seat boxes: they extend all the way to the hull sides. With the proper foam insulation, a seatbox can be used as an ice box.

The pilothouse can be partially or completed closed with Plexiglas or Lexan but builders should keep the size of the boat in mind and not make the topsides too heavy or excessively increase windage. Framed or hinged windows are possible but keep them light.

We show a small hatch in the roof for light and ventilation, no portholes but they are easy to add.

The P19 can be made unsinkable with expandable buoyancy foam under the sole while foam sheets glued under the gunwales will guarantee upright floatation.

Bill Of Materials:

(Excerpts from our BOM)

The BOM list materials based on our standard layout and includes a 15% waste factor for resin and fiberglass. For plywood, we use standard sheets 4' x 8' (122 x 244 cm). Meranti marine BS1088 is the plywood of choice for this planing hull.

Plywood 4x8' (122x244cm)	
1/4" (6mm)	14

3/8" (9mm)	7	
1/2" (12mm)	7	
Fiberglass (totals)		
Biaxial tape	317 yards	285 m
Woven tape	10 yards	9 m
Biaxial fabric	27 yards	24 m
Resin		
Epoxy, total	15 gal.	60 l.

Labor:

The hull can be build in 80 hours but a finished boat will require 300 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:

- 12 detailed drawings with all dimensions required to cut the sides, bottom, bulkheads, deck, floors and all parts from flat plywood sheets: no lofting, no templates required.
- Nesting drawings for the best plywood layout with labeled parts.
- Construction drawings showing assembly with notches, parts numbers for most of the hardware such as hatches, fuel fill, inspection plates etc.
- One full size pattern for the bow mold.
- Drawings list:
 - B246/1 Plan and Profile
 - D246/2 Nesting
 - D246/3 Layout
 - D246/4 Construction
 - D246/5 Stations
 - D246/6 Frames
 - D246/7 Expanded Panels - Hull
 - D246/8 Expanded Plates
 - B246/9 Lamination Schedule
 - B246/10 Details
 - E246/11 Full Size Patterns - Windshield & Cabin Front
- B187 Standard Center Console and Notes
- B221 Typical Small Boat Electrical
- "Building on a jig" file including a detailed description of the assembly sequence and building tips.
- Specific building notes for this boat.
- Bill Of Materials.
- Help files reference list and more.