



Small but able outboard cruiser based on a dory style hull.

<b>Specifications:</b>		
<b>LOA:</b>	18' 9 "	5,72 m
<b>Max. Beam:</b>	7'10"	2,39 m
<b>Hull draft:</b>	9"	229 mm
<b>Hull weight:</b>	1,100 lbs.	500 kg
<b>Displacement at DWL:</b>	2,500 lbs.	1136 kg
<b>PPI at DWL:</b>	435 lbs.	198 kg
<b>Recommended. HP</b>	50	
<b>Material:</b>	Stitch & Glue	



The HM19 is the response to repeated requests for a cabin version of the successful OD18. The OD18 (Outboard Dory 18') is not your regular power dory: it's a flat bottom planing hull with a beveled chine to avoid tripping, a well defended high bow and a nice classic sheer line. The OD18 owners and builders love her lines but the addition of even the smallest cabin would have destroyed her well-balanced proportions. As the designer, I refused to consider the change until somebody suggested having a look at the C-Dory 16, a fiberglass production boat with a small pilothouse and cabin. The enthusiasm of the message board users was such that I did some sketching. We kept the same basic hull than the OD18 but changed the sheer line and added a cabin and pilothouse. The result was a very different looking boat and her commanding looks inspired the name Harbor Master.



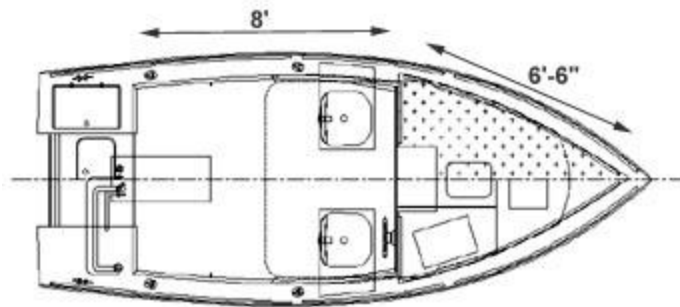
### Performance:

Calculations by the Crouch formula show that with a 50 HP, she will go between 24 and 28 mph depending on the load. A 70 HP can be used but per USCG calculations, 55 HP is the maximum that should be installed with remote steering unless the capacity tag identifies her as "experimental". A 10 HP is more than sufficient to push her at displacement speeds for those who prefer a more tranquil pace.

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

### 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 an 18 gallons fixed fuel tank, ideal for a four-stroke engine but if you need more range, there is room for a second tank. The fuel tank fittings end up under the motorwell to make connections and access to a fuel filter as easy as possible: no need for chase tubes, easy installation of all hoses. A fixed fuel tank is not required however: two portable tanks can be installed under the seats with room to spare.

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 HM19 is built the stitch and glue way but don't let the name confuse you. She is not a plywood boat held together with some resin and glass tape. Epoxy is used for the fiberglass laminations and all parts are saturated with resin. The HM19 is engineered as a composite boat. Most of the planking is made of a plywood-epoxy-glass sandwich in which the plywood is only a core: the directional fiberglass provides most of the strength. Completely encapsulated in epoxy, the plywood will not rot. The monocoque structure with its fiberglass framing is typical of composite boats: stronger than plywood on frame but lighter. [See a step by step description of the building here.](#)

**Required Skills:**

As all our stitch and glue boats, the HM19 is easier to build than plywood on frame or fiberglass boats. There is no wood framing, no delicate assemblies with tight fits, no need for special tools. Since the strength comes from the fiberglass, small gaps between parts are recommended: a 1/4" cutting mistake becomes a blessing!



**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 completely 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 HM19 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 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. Okoume or Meranti marine plywood starts at less than \$50.00 a sheet (1/4").

<b>Plywood 4x8' (122x244cm)</b>		
1/4" (6mm)	11	
3/8" (10mm)	15	
1/2" (12mm)	6	
<b>Fiberglass (totals)</b>		
Biaxial tape	237 yards	213 m
Woven tape	42 yards	38
Biaxial fabric	18 yards	17 m
<b>Resin</b>		
Epoxy, total	12 gallons	45 liters

**Cost:**

See our kits and add the cost of plywood bought locally.

**Labor:**

The hull can be built in 50 hours but a finished boat will require 250 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:**

13 detailed drawings with all dimensions required to cut the all the panels from bottom to cabin parts and windshield from flat plywood sheets: no lofting, no templates required.

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

- Drawings list:
- D220\_1 : Plan and Profile
- E220\_2: Construction with several plan and profiles views and sections
- D220\_3: Layout, accommodations, fuel tank, seats etc.
- D220\_4: nesting on standard plywood sheets
- D220\_5: more plywood layouts and cutting drawings
- D220\_6: Expanded plates dimensions for all hull parts
- E220\_7: Expanded plates for cabin and other parts
- E220\_8: Stations with frames, bulkheads and transom outlines
- D220\_9: Frames and bulkhead details
- B220\_10: Lamination Schedule
- B220\_11: Details, gunwale, sole, hardware installation
- E220\_12: Full size patterns for windshield, cabin forward face, foredeck.
- B221 Typical Small Boat Electrical
- Detailed notes with step by step pictures of the complete building process.
- Specific building notes for this boat with Bill Of Materials
- Suppliers list (US).
- Typical stitch and glue principle drawing
- Help files reference list and more