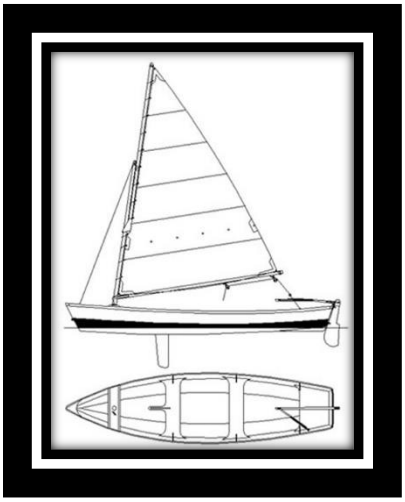

The requirements for the Otter 16 were simple: an able open rowing skiff with an auxiliary sail. This had to be a rowboat first.

SPECIFICATIONS

LOA	15' – 6"	4,73 m
Max Beam	4'-1"	1,25 m
Hull weight *	160 lbs.	73 kg
Sail Area	65 sq. ft.	6 m^2
Recommended HP	2	

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

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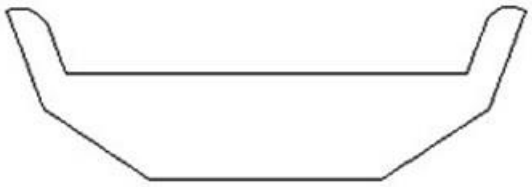
DESCRIPTION

A length around 16' lets us use long oars and is about ideal for a serious row boat, smaller skiffs do not have sufficient inertia to go through a chop. This size also provides sufficient seaworthiness and ample capacity for camping cruising or fishing.The layout can be used for single or double rowing. The sail is an auxiliary sail: small are and spars that can be stowed inside while rowing; the small daggerboard and rudder do not affect rowing performance. Many excellent designs in that style exist, in particular the ones by Pete Culler and Atkins but are for traditional wooden boat building. Designs for plywood or stitch and glue are rare, most of them are flat bottom or vee hulls with more drag than ideal and a shape that will slam in a chop. A more refined hull shape is the one we use on many of our sailboats and for our row boats like the Scilly Gig and Row13. That five panel hull shape is as close as you can get to a round bottom one. That type of hull is also very easy to build. One designer, Joe Dobler, used that same hull shape successfully and since we have the same program, same material and same size, it is no surprise that our boat looks very much like the Lissa, one of Dobler's designs. Our scantlings are much more generous than in the Dobler design. The Otter has a strong and stiff bottom, a true fiberglass sandwich and will withstand being dragged on a beach or running aground on an oyster bar. However, we kept weight in mind and the Otter has lightening holes in the frames. We also show limber holes and a drain plug.



BUILDING METHOD

The construction method is stitch and glue. It makes for a very stiff and strong yet light boat. The Otter is easy to build and the rowing version can be build as a first project. As with all our plans, no lofting is required.

REQUIRED SKILLS

There is nothing difficult about building a skiff the sharpie way: a boat like this one will go together fast and easy. There are no plywood scarfs: we use very simple fiberglass splices. No woodworking skills or special tools are required.

OPTIONS

The spars and sail are optional. Removable mid frame for sailing. While sailing, it is much more comfortable (and stable) to sit on a cushion on the bottom of the boat than on the thwarts. When sailing alone, you will sit in the middle using the tiller extension. For those occasions, the rear thwart is removable and will open the cockpit. Lockers in stern seat. The stern seat can be used as a locker. The plans include a drawing showing how to make a lid that requires no hinges and stays in place while heeling. The Otter can be made unsinkable with buoyancy foam: two-part expandable foam in the stern and sheets of foam glued under the seat tops. The curved corners of the seat tops are optional, they can be made straight if the builder prefers.

Rowing - The Otter uses long oars, 8.5 to 9'. You can row her double using the thwarts or single, sitting in the middle on a removable seat. When not in use, that removable seat is stored forward of the daggerboard trunk. The removable seat doubles as a storage locker. Foot braces are not shown: the frames are just where your feet will rest but if you need them, simple cleats epoxy glued to the lower chine panel will do the job.

Sail - Option: The sail is an option. The Otter 16 can be built as simple rowboat without sailing accessories. The sail option almost doubles the labor and cost of the Otter. We choose the gunter rig for its simplicity. It is inexpensive, easy to make and easy to use. It is close to the marconi rig in aerodynamic efficiency, but it keeps the spars short and the weight low when reefed. All the spars can be stored inside the hull while rowing with the sail rolled around them. The low mast is easy to set up by one person even afloat. Except for two small blocks, the running rigging requires no hardware, a few lines are all what is needed. The sail area is moderate but it's function is to bring you home if you tire of rowing or slowly explore remote places that power boats cannot reach.

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LABOR

The average construction time for the hull is 25 hours ready for sanding and paint. The sailing option will more than double that.

BILL OF MATERIALS

Plywood (4x8' – 122x244cm)		
6 mm (1/4")	4	
9 mm (3/8")	2	
Also see our CNC Kit, which is a precut plywood kit that includes all the plywood needed to build the boat as designed.		
Fiberglass Fabric and Tape		
Fiberglass Biaxial Tape 45/45 12 oz., no mat, 6 in.	30 yards	27 m
Woven Tape 6 oz., 4 in.	30 yards	27 m
12 oz – 50" Biaxial Cloth	10 yards	9 m
Resin		
Epoxy	4 1/2 gallons	17 liters
Also see our MarinEpoxy or Silvertip Epoxy kits which include all of the epoxy and fiberglass listed.		

This BOM covers all the supplies for this boat as designed. Usage of materials will vary in function of several factors. An experienced builder will use less resin. First time builders always use more resin, take that in account. Our resin usage calculations are based on a 50% glass content. Options, customization, and variations in fabric and foam cutting preferences will also affect the Bill of Materials. Our figures show an estimated average. Small variations in fiberglass specifications are acceptable, consult us for substitutions.

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MORE

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

LICENSE

As with all our plans, you have the right to build one boat from those plans. The designer holds the copyright to the design, and you purchase a license to build one boat. If you plan to build more than one boat, please contact us about licensing fees.

BUILDING STANDARDS

These plans were drafted according to the ABYC rules. The ABYC (American Boat and Yacht Council) defines the boat building standards in collaboration with the USCG. Professional builders may be subject to more requirements. Consult the designer.

The ABYC standards are very close to the ISO norms and CEE requirements but no European certification was applied for since this is not required for amateur boat building in Europe. CEE/ISO certification is available to professional builders for a fee.

PLANS PACKING LIST

Plans are available in metric or US units.

- B273_1 Plan & Profile
- B273_2 Nesting
- D273_3 Construction/Frames
- B273_4 Expanded Plates
- B273_5 Appendages
- D273_6 Sail Plan
- D273_7 Full Size Patterns
- Specific building notes for this boat
- Help files reference list and more.

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