

Down East style cruising outboard boat.

<b>Specifications:</b>		
<b>LOA:</b>	24' 11-1/2"	7,61 m
<b>Max. Beam:</b>	8' 4 "	2,54 m
<b>Hull Draft with Skeg:</b>	14"	656 mm
<b>Hull weight:</b>	1750 lbs.	795 kg
<b>Displacement:</b>	2,800 lbs.	1,273 kg
<b>PPI at DWL:</b>	600 lbs.	270 kg
<b>Recommended HP</b>	90-200	65-150 Kw
<b>Fuel:</b>	92 gallons	368 Liters
<b>Material:</b>	Stitch & Glue	composite

*All specs + or - 10% depending on builder's workmanship. Hull weight means complete but empty with minimal hardware. Displacement is designed displacement, not maximum.*

The DE25 is a larger, long cockpit version of our DE23. She combines traditional styling with an efficient, easy to build planing hull. She is not a true lobster boat of the double wedge type or a pure fast planing hull. The hull type is similar to what is now frequently called a picnic boat; a seaworthy planing boat but the topsides are more in the Down East cruising boat style. We kept the deep forefoot of the modern fast lobster boat hull, but the underbody is a true monohedron. This means that the transition to planing speeds will be smooth without any excessive change of trim and without the wasteful suction of warped bottoms running at an S/L higher than 2.

*(S/L ratio is speed in knots divided by square root of WL in feet. Displacement boats are the ones with an S/L<1.3, planing boats have S/L>2)*

The Down East 25 will perform well at displacement speeds in bad weather and run efficiently at moderate planing speeds with relatively small engines.



The Down East 25 has an enormous capacity: she can be loaded with up to 2,000 lbs. of passengers, engine and gear.

The DE25 has maximum 6' 2" (185 cm) of standing headroom in the pilot house. The cockpit floor is well above the waterline and self-bailing.

**Performance:**

The calculated top speeds at WOT with a new engine, correct prop, are as follow:

<b>Displ. 2800 lbs</b>	speed	<b>Displ. 3600 lbs</b>	speed
90 HP	25 mph	90 HP	22 mph
115 HP	29 mph	115 HP	26 mph
150 HP	33 mph	150 HP	29 mph

Those are conservative figures, with proper tuning many of our builders attain more than our calculated speeds. Note the influence of weight on speed.

The DE25 is not designed to cruise above 30 mph.

See our forum for a performance report of a DE25 built from a boat kit. The boat is a little bit on the heavy side but despite that, the speed is right on target. Keep in mind that the speed is measured in knots, not mph. 27.2 knots =

31 mph.

The post is at <http://forums.bateau2.com/viewtopic.php?f=2&t=25532>.



Compared to traditional lobster boat types, the Down East 25 hard-chine vee bottom hull will not only be faster than the typical round bilge type but also deflects spray more efficiently.

The reduced deadrise aft increases stability at slow speed or rest.

She differs from our faster planing hulls through her deeper forefoot and generous skeg for stability and tracking.

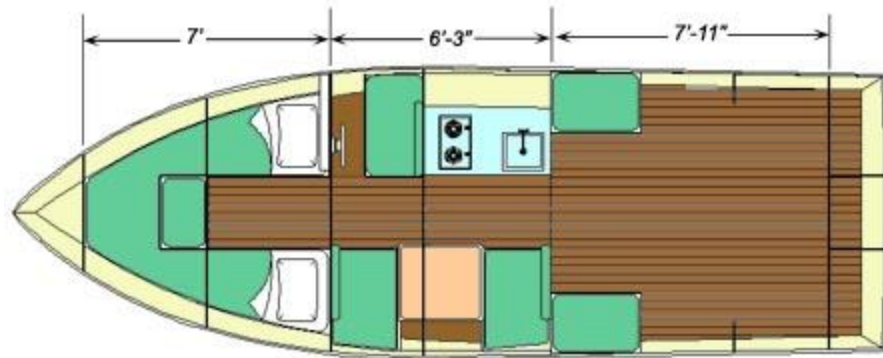
The transom is designed for a standard 20" shaft but can easily be modified to accept other shaft lengths like 25'.



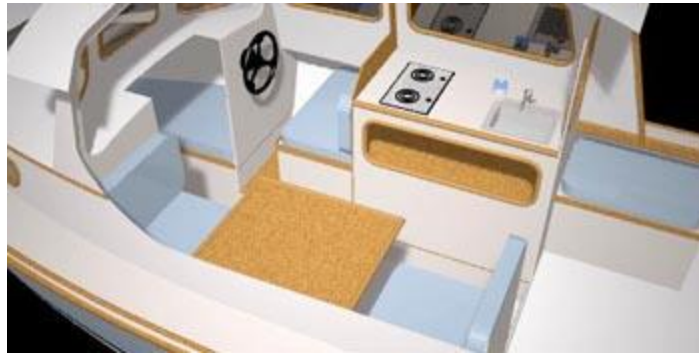
### **Layout:**

The DE25 long cockpit looks very much like a slightly wider and 30" longer DE23: same accommodations inside but much longer cockpit.

The safe self-bailing cockpit is deep and wide: 7'-11" long (2,41 m), 8' wide (2,40 m) and 28" deep (71 cm). The full height motor well bulkhead provides excellent protection from following seas. The cockpit is self-bailing but the cabin sole is lower than the cockpit. To keep the inside floor dry, there is small step (bridge deck) between pilot house and cabin, see the options paragraph. The pilothouse offers standing headroom: 6' 2" in the middle (185 cm), the forward cabin with two bunks has sitting headroom.



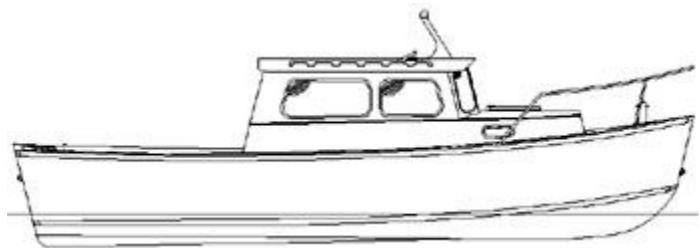
There is room for a portable head under the vee berth. The dinette can be lowered to make a 27" (69 cm) wide berth.



A sturdy samson post is welded to the forward bulkhead.

#### **Building method:**

The Down East 25 is a composite epoxy-fiberglass-plywood boat. Some call it second generation stitch and glue. The hull is built around a simple plywood core sandwiched between layers of directional fiberglass in epoxy. This method produces a high-quality fiberglass boat using methods within the reach of any amateur builder. The hull is assembled on a simple jig made from the bulkheads, frames and some temporary molds. The plans show all necessary dimensions: all bulkheads, frames, molds and transom dimensions plus accurate expanded plates dimensions for all hull panels. No lofting, no need to measure from the jig as in plywood on frame construction. We did all the calculations for you. The egg-crate structure is stronger than traditional framing and the space under the sole, between the stringers, can be filled with flotation foam to make the boat unsinkable.



The standard cabin and pilothouse is made from a foam sandwich composite for lighter weight and superior insulation but we also show a plywood superstructure option.

There are several advantages to a foam sandwich superstructure. Lighter topsides mean better performance, improved stability and easier towing on the road.

The plans show specifications for the two methods: cabin made of regular plywood and epoxy and our sandwich panels. We can supply all the materials for either method.

#### **Required Skills:**

The DE25 is easy to build: a plywood hull shell assembled the stitch and glue way but fiberglassed on each side. No woodworking skills or special tools are required. The plans include all dimensions and patterns to cut all the hull

parts flat on the shop floor. No lofting, no beveling, no scarfing: the sides and bottom are cut from standard 4x8 plywood (122x244cm), joined with a simple fiberglass seam. All seams are taped with fiberglass and epoxy, see our "How To" section for details. These epoxy seams are much stronger than the plywood. The DE25 is a large boat. She is not difficult to build but we recommend building a small boat first if only to become familiar with the material and technique

**Options:**

There are many possible options and we cannot list them all.

- The DE25 exist in two versions: long cockpit or long cabin. See our plans list for the other version.
- The outboard can be mounted in a motor well or on a transom bracket.
- We show an open cockpit, but the builder can easily add benches, seats and other boxes.
- The pilothouse door can be modified to use a high drop-down board and shorter doors. This will allow to safely leave the doors open offshore in bad weather.
- There is room for a small emergency outboard (kicker) on the transom or on the bracket.
- The plans show wide scuppers in the sides but through transom scupper are an option.
- The pilothouse rear bulkhead can be left open and fitted with a roll up canvas curtain.
- The windshield can be hinged to lift open.
- Hatches and portholes are optional.
- Access to the chain locker is shown from inside through a cut in the forward bulkhead but the builder can also cut a deck hatch if he prefers.
- Fuel capacity is ample with 46 gallons in two tanks.
- The DE25 can be made unsinkable with expandable buoyancy foam under the sole and foam sheets glued under the gunwales for upright flotation.

A precut plywood kit with molds is available for this boat. Epoxy and fiberglass kits, with buoyancy foam are also available.

**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. We recommend marine grade plywood BS1088 for the hull, either Meranti or Okoume. Interior Structural components, such as stringers and bulkheads, can be made from less expensive plywood like marine fir or quality exterior if there are no voids. The plywood represents a small percentage of the total weight of the boat. The weight saving of using Okoume vs. Meranti is about 10% hull weight for a power boat of that size. For larger boats, the savings are even less. Does the weight savings justify the extra cost; that is up to each builder. The plywood or foam for the pilothouse is not included in this BOM: add 4 to 6 sheets. The fiberglass for the cabin and pilothouse is also not included. Add around 20 yards of biaxial tape for each version, 10 yards of woven fabric for the plywood cored version and 20 yards of biaxial wide fabric for the foam cored version.

<b>Plywood 4x8' (122x244cm)</b>		
3/8" (10mm)	28	
1/2" (12mm)	9	
<b>Fiberglass (totals)</b>		
Biaxial tape	480 yards	432 m
Woven tape	50 yards	45 m
Biaxial fabric	83 yards	75 m
<b>Resin</b>		
Epoxy, total	30 gallons	120 liters

**Cost:**

The cost of materials varies depending on your location, your choice of epoxy brand, plywood type and options. Use our Bill Of Materials with the local cost of materials or add our kits cost. Inexperienced builders will use more resin.

**Labor:**

The hull can be build in 80 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:**

- 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 numbered parts.
- Construction drawings showing assembly and parts numbers for small hardware.
- Drawings list:
  - B271\_1 Plan and Profile
  - B271\_2 Nesting
  - E271\_3 Construction
  - E271\_4 Stations
  - D271\_5 Frames
  - E271\_6 Expanded Plates
  - D271\_7 Expanded Plates
  - B271\_8 Frames Details
  - B271\_9 Lamination Schedule
  - B271\_10 Details
  - B271\_11 Motorwell Option Details
- B221 Typical Small Boat Electrical
- Specific building notes for this boat.
- Help files reference list and more.