

A simple, economical, small, easy to build, and fast planing boat.

SPECIFICATIONS

LOA	12'	3,65 m
Max Beam	56"	1,42 m
Hull weight *	160 lbs.	72 kg
Designed Displacement/Draft	450 lbs./5"	205 kg/12 cm
PPI at DWI	160 lbs.	80 kg
Depth/Freeboard	22"/32"	56/81 cm
Capacity weight/persons per USCG	650 lbs./3 persons	300 kg/3 persons
Outboard recommended/USCG	5 to 15 HP/15 HP	3 to 10 kW/10 kW

** 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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BUILDER'S THREADS ON OUR FORUM

[tech_support - FS12 Build - Florida, USA](#)

[eril n - FS12 DownUnder progress - Brisbane Australia](#)

[deering - FS12 \(many liberties taken\) - Alaska, USA](#)

[cdurbin - FS12 - Boston, MA - Massachusetts, USA](#)

[tomster - FS12 - Texas, USA](#)

DESCRIPTION

The Fast Skiff 12 has a program similar to our FL12 with a major difference: she is designed as a planing hull, without rocker and a moderate vee. She is designed for a first-time builder and is an excellent introduction to the material and the building method we use for our large power boats: true composite hull, simple set up on a jig made of a pair of 2 by 4's.

Speed and HP. At 500 lbs. displacement, at WOT, the max. speed will be: 5 HP : 15 mph and 10 HP: 21 mph.

This is for an engine in good condition at wide open throttle. In other words, the FS12 will plane with 2 light or one large person and an 8 HP outboard. The USCG calculations give a maximum of 15 HP with tiller steering. We consider 15 HP excessive on that size boat, not only because of the speed but because of the weight of the engine on the transom.

We show a standard layout that can be customized. The middle frames should stay where we show them because they cover the butt blocks. The other frames can move if necessary. From the bow, we cover the bow part of the boat with a casting deck. There is plenty of storage under that fore deck with access through an opening in the frame. The middle seat is sealed but can be fitted with openings or a hatch. The aft deck allows a person sitting on it to steer the boat without having to lift the tiller in turns. The aft deck shows a cut for the outboards clamps and fuel fitting. We also show a hatch that is simple to build, does not require hardware but stays in place even in rough weather. The boat will be well balanced with a tiller man sitting on the aft deck and a passenger forward but when single handed, the tiller man should sit in the middle and use a tiller extension. A tiller extension is a simple PVC pipe.



This is not particular to our boats! All small boats are sensitive to weight distribution and it is good seamanship to keep the boat properly trimmed.

The plans show limber holes and a notch in the frames to run a fuel line from the bow to the stern, along a stringer.

The transom is designed for a standard 16.5" shaft but can be cut lower or raised higher, between 15 and 20" if you have a different shaft length.

There is a small skeg (keel) that helps tracking and protects the bottom.

Our assembly method uses butt blocks that are hidden under the mid seat and act as locators during

the construction: no need to measure the location of the frames and the butt blocks are invisible!



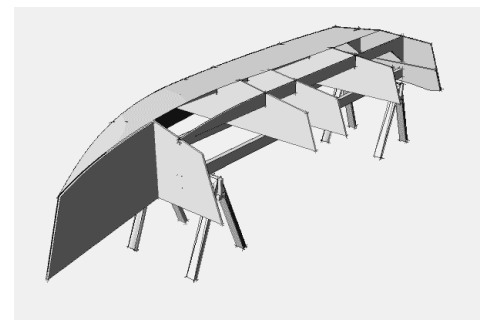
COMPARISONS:

Difference between the FL12 and FS12:

The FL12 is a displacement hull. That means that she will move easily through the water at displacement speeds, with oars or a small outboard. The FL12 will not plane even with a large outboard because of the rocker in the hull. The transom of the FL12 is above the waterline at normal trim and she can be lighter than a planing boat. The FS12 is a planing hull without rocker. A planing boat must withstand heavier bottom loads and the transom must be able to transmit the thrust of the engine to the hull. For those reasons, the planing boat hull must be stronger and heavier. With her immersed transom, the FS12 will not row as well as the FL12.

BUILDING METHOD

The FS12 can be built in two different ways: with or without a jig. The FS12 can be built the same way as the FL12 and other small boats, by the sharpie method. The hull is shaped by bending the side panels around the frames and transom and the bottom panel is added. Our detailed building notes show a better and more precise method using a jig made of a pair of 2x4's and two sawhorses. Unlike the sharpie method and origami style variants with folded panels, this method guarantees a straight bottom, essential for good performance at planing speeds. It does not increase the amount of labor, quite the opposite. The inside fiberglassing is much faster with this method.



REQUIRED SKILLS

If you plan to build a larger power boat, the FS12 is an ideal first boat. You will build the FS12 using all the techniques required to build a larger boat but at a small scale, on a very simple jig and using very little materials.

As all our stitch and glue boats, the FS12 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

Access under casting deck: the builder can leave the frame full and cut an hatch in the top.

Front seat: he can also replace the casting deck with a plain bench but that will require the addition of a breasthook.

Middle seat: optional cuts in the frame for access or hatch in the top (shown on the plans).

Aft deck: you can leave the top in one piece and provide access through a cut in the frame. We do not show strakes, they will not add much to performance and tracking. You cannot omit the stringers, sorry. They are part of the structure that stiffens the bottom, but you can cover them with a sole, fixed, or removable. You can add a spray rail. This would be a simple batten, quarter round section, epoxy glued along the edge of the chine.

An important option is buoyancy. You can make our FS12 unsinkable by pouring two-part foam in strategic locations. The building notes suggest pouring the foam in unusable corners. The hull floats by itself: the density of our material is less than water (or plain fiberglass) but you will need foam to support the weight of the engine and the crew. There is no "heavy duty use" option. The hull is very strong as designed.

LABOR

The hull can be built 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.

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 6 oz., no mat, 6 in.	100 yards	91 m
Woven Cloth, 10oz., 50 in. wide	10 yards	9 m
Resin		
Epoxy	5 gallons	20 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.

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.

-  B277_1 Concept drawing
-  B277_2 Plywood nesting for all parts.
-  B277_3 Frames
-  B277_4 Hull and Deck panels
-  B277_5 Construction and lamination schedule .
-  B225_c: Detail drawing for seat locker lid with framing and assembly view.
-  Specific building notes for this boat
-  Help files reference list and more.