

**FREE PLANS: PAUL GARTSIDE VICTORIAN DAYSAILER**

No 109 January/February 2015 £5.50 Bi-Monthly

# WATER CRAFT

DESIGNING BOATS • BUILDING BOATS • USING BOATS



- Small Boat Summer: Swallows and Amazons & English Raid
- Dressage for Boats • Oars for Recreational Rowing
- What's the Point of Water Ballast? • Designer Paul Fisher
- Amateur Boat Building Awards 2015 • Outdoor Boat





## The leading French designer François Vivier introduces the Stir-Ven 19



*François Vivier offers two versions of the Stir-Ven 19 : the 'cuddy cruiser left and the family dayboat right. Both can have water ballast*

**S**tir-Ven was designed 17 years ago as a day-sailer and raid boat. She has been very successful with around 50 built, some by the Grand-Largue boatyard in France but most by amateur builders in several countries. At 22' (6.7m) LOA, the original Stir-Ven offers a large cockpit, with plenty of space for up to seven crew and outstanding sailing ability in both light breezes and strong winds. Her success and the enthusiasm of Pierre-Yves, the manager at Grand-Largue, encouraged me to design a smaller version of Stir-Ven.

Our objective was to create a lighter boat, easy to launch from a slipway by keeping the flat bottom of Stir-Ven. We also wanted to retain the superior performance of the older boat. The Stir-Ven 19 has a NACA profiled cast iron centreboard, an efficient hull with a low wetted area but a firmer bilge. This new boat is fitted with a water ballast tank which gives stability at sea but ensures that she is a light boat on the trailer.

The water ballast is simple. There are two dinghy type hatches in the tank top and thru-hull drain plugs under the hatches. To fill up the tank, one just opens the hatches and the plugs, shutting them when the tank is full. To empty the tank, you open a pair of drain plugs in the aft bulkhead and use the bilge pump to discharge at sea. Of course, it is also possible to empty the ballast tank directly if the boat is already on the trailer.

At the request of many customers, the cockpit is watertight and self draining. In order to ease recovery after capsize, the space under the cockpit is floodable as soon as a large quantity of water enters into the boat. As the cockpit extends the full width, a special arrangement has been designed to allow draining at sea. On each side of the cockpit, there is a draining box with an Elvstrom-type bailer. When reaching with enough breeze, you can drain the water with the downwind

bailer. When sailing to windward or in light breeze, you use the upwind bailer by simple gravity

An additional appeal of the self-draining cockpit comes when the boat is on a mooring. The slope of the cockpit sole drains the rain towards the boxes, which makes it possible to leave the boat unattended for quite long periods.

The size of the cockpit allows two people to spend nights aboard under a boom tent. There is a locker under the foredeck and two ample ones under the cockpit side benches, each big enough to stow an outboard. The outboard is clamped into a removable cut-out in the transom. Oars may be stowed under the cockpit sidedecks.

The rig is a neat and effective gaff sloop. To make the rig even simpler, there is no bowsprit. It is possible to use either a symmetric or asymmetric spinnaker. In the latter case, a removable bowsprit is fitted.

As with most of my designs, Stir-Ven 19 is designed to be easily built by an amateur builder, taking advantage of CNC cutting – and more than 10 years of design improvements and simplifications on previous boats. Most parts are supplied as pre-cut plywood, with only simple adjustments required using basic hand or portable tools. A full 3D model of the boat can be made by allowing the step-by-step illustrated building instructions, in addition to drawings.

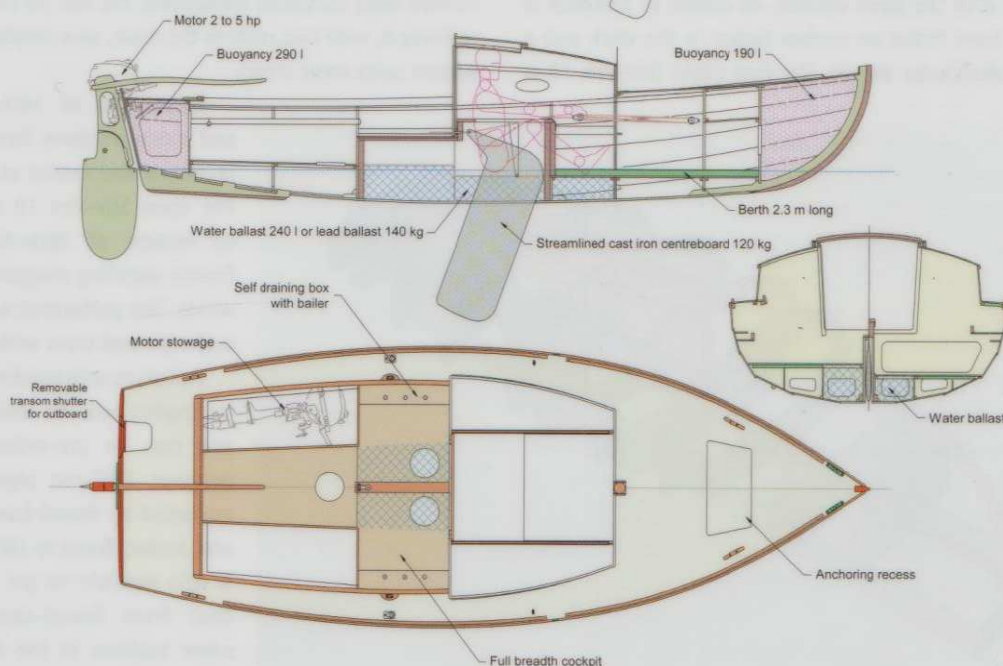
We have been asked to draw a cabin version to give better and drier shelter, as on the original Stir-Ven. The cabin has a full-width sole on which there is seated headroom but do not expect more creature comforts than an igloo tent!

In order to get the best compromise between internal height and outside appearance, the coachroof top has a double curvature. It is cold-moulded from plywood over an 'egg box' jig of CNC-cut parts. We have drawn a wide companionway

# Stir-Ven 19 cabin



Hull length	5.70 m
Waterline length	5.15 m
Breadth outside planking	2.10 m
Waterline breadth	1.80 m
Draught	0.25/1.15 m
Depth under sole	0.76 m
Weight with motor	580 kg
Crew	4/5
Design category	D/C



## STIR-VEN 19 SPECIFICATION

Length overall: 18'8" (5.70m)

Waterline length: 16'11" (5.15m)

Max beam: 6'11" (2.10m)

Waterline beam: 5'11" (1.80 m)

Draft - c/b raised: 10" (0.25m)

c/b lowered: 3'9" (1.15m)

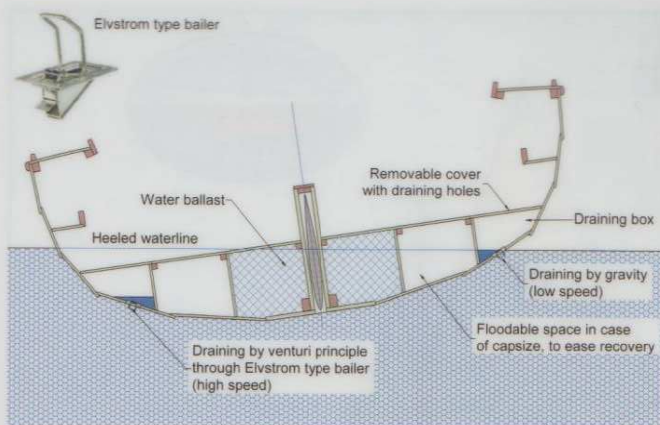
Open version weight with o/b: 1179 lbs (535 kg)

Cabin version weight with o/b: 1279 lbs (580 kg)

Working sail area: 229 sq.ft (21.3m²)

Design category: D/C





**jAbove:** The full-width cockpit is self-draining via self-bailers in draining boxes port and starboard. In addition to the water ballast tanks, there are compartments under the sole which can be flooded to aid recovery after a capsize.

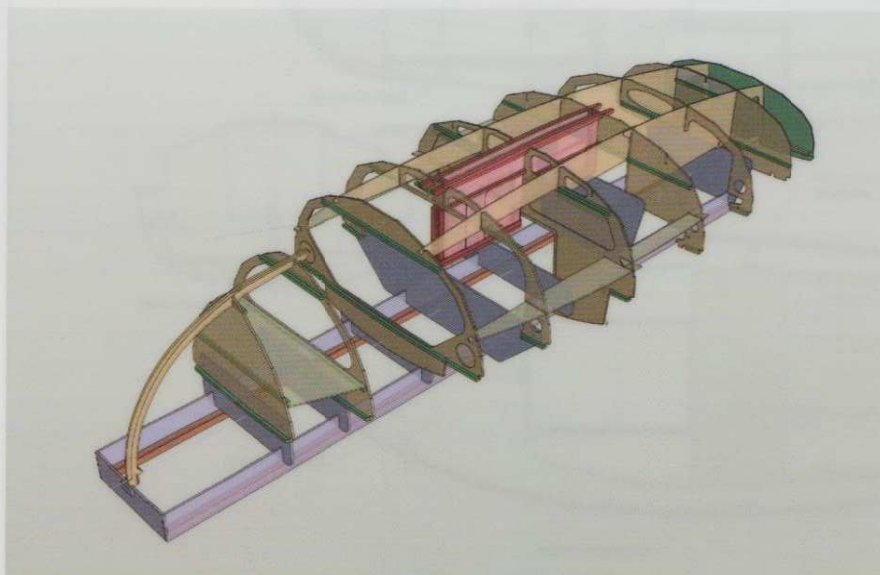
**Below:** No measuring! All the transverse frames locate precisely at the right heights and spacings on the building frame.

**Bottom:** The components of the 'egg-box' building mould for the roof of the cuddy are included in the CNC-cut kit.

hatch to give satisfactory access to both sides of the centreboard case.

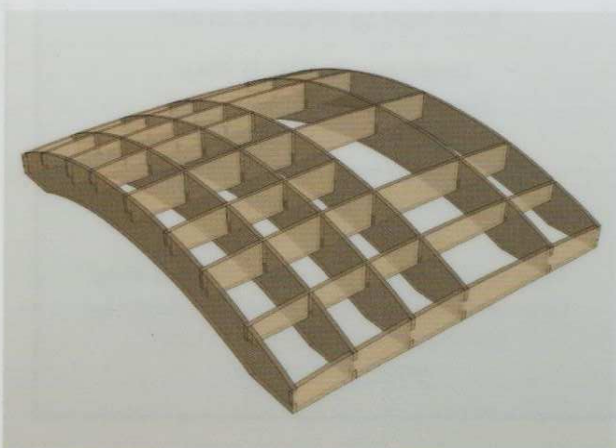
This cabin version makes Stir-Ven 19 an excellent raid-boat for a crew of two. A tabernacle on the front of the coachroof makes raising and lowering the mast only slightly more difficult than with the open version. As access to foredeck is less easy, we have fitted an anchor locker in the deck and a roller-furling device for the jib. The first cabin Stir-Ven 19 is

sailing in the Med, where strong breezes may suddenly arise. The owner asked for a roller reefing system which would allow sailing with a partly rolled jib. We have designed a traditional system with a Wykeham Martin gear, a hollow wooden spar with a half groove and custom end fittings. In normal west European conditions, the full jib can be used up to Force 6, with two reefs in the main, so a simple roller furling system suits most crews.



Prototypes of both the open and cabin versions have been built, launched and tested at sea in 2014. The open Stir-Ven 19 was tried out by readers of *Voile-Magazine*, the French yachting magazine, in Force 6 winds. She performed well and safely under jib and main with two reefs.

Full plans with building instructions in English will be available shortly and may be pre-ordered from the designer. CNC-cut plywood kits are marketed by Grand-Largue in France and Jordan Boats in UK. Of course, it is also possible to get the complete boat from Grand-Largue or from other builders in the UK and other countries.



#### CONTACTS

François Vivier Architecte Naval, 7 avenue des Courtils,  
44380 Pornichet, France Tel: 33 (0)6 74 54 18 60  
email : [fr@vivierboats.com](mailto:fr@vivierboats.com) [www.vivierboats.com](http://www.vivierboats.com)

Chantier Grand-Largue, ZA La Ville au Coq  
35800 Saint Briac sur mer, France  
Tel: +33 (0)6 22 07 71 41/ +33 (0)2 99 88 91 93  
email: [py.delariviere@grand-largue.fr](mailto:py.delariviere@grand-largue.fr)  
[www.grand-largue.fr](http://www.grand-largue.fr)

[www.jordanboats.co.uk](http://www.jordanboats.co.uk)