

## Hat's off to you for choosing a kit from Port Townsend Watercraft.

A 30 year fascination with the challenges of nesting boat design, and many prototypes have led to the PT Eleven. Because you chose this kit, we know that you are well aware of the qualities of this boat. Even so, we would like to share some views about the boat, the manual, and the building process as our perspective could make your project more rewarding and your boat more valuable.

The PT 11 is by far the most highly developed nesting dinghy available at this time.

There are any number of nesting dinghies that are less expensive and take less time to build, but they don't offer the same qualities of the PT11. By qualities, we mean many things; rowing and sailing performance come first of course, but performance is not just design, it's in the details too.

In the PT 11, the details are what we put the most effort into. The robust and effective connective hardware system is at the top of that list, but there are many other specifics that make the PT11 so functional; precise & compact nesting, ample built-in flotation, the watertight hatch & daggerboard trunk cap systems, 2 rowing stations with well thought out locks & braces, the glue-on bumper system, and the super light and easy-to-use sailing rig and foils, just to name the most visible features.

While the PT 11 offers more than other comparable boats, it doesn't come for free. The kit is dear and building the boat takes attention and time. To get the most for your effort and investment, following the manual is highly recommended.

The PT 11 manual is the product of thousands of hours and many thousands of photos. We have built many 11's just to work out the processes and sequences for the purpose of making this rather complex boat as easy to build as possible. The latest build and updates were done in early 2014.

Much of the building time is related to longevity and is necessary for a boat intended for use as a cruising tender. The PT 11 is covered with fiberglass cloth on all exterior surfaces. Different weights of cloth are used in different areas and pre-glassing parts of the boat (before assembly) is a technique used wherever possible.

If a builder wanted to streamline the building process and was planning on light use, many of the glassing procedures could be skipped. The chines and the outside of the hull must be glassed, but much of the edge detail glassing and inside hull panel glassing could be omitted and replaced with a few thorough coats of epoxy. One could glass only the high wear areas, such as the inside bottom area of the aft hull half and other chosen places. While we mention these possibilities, we don't recommend it. A well built PT 11 could last for generations and will probably always fetch a surprisingly high resale price.

**The sequence of steps shown for building the PT 11 is important to follow.** We often indicate what parts will be needed soon, that can be done as side projects while waiting for epoxy to cure. Checking off steps when completed can be helpful.

In this manual, we try to keep the text as short as possible and let the pictures tell most of the story. If something is not clear, scan ahead and look at photos or scan even farther ahead to look at photos of an area finished. Email us for help if something is still not clear. [info@ptwatercraft.com](mailto:info@ptwatercraft.com) We encourage you to read the manual, or at least scan it all the way through before starting to build.

In this type of boat building, drilling lots of small holes is necessary. Don't panic. The majority of these holes get filled with epoxy (in a syringe) at one time, in one easy step. For color matching, see page E23 at the back of this manual.

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Techniques described in the manual are initially very detailed. Repeated techniques are later described in less detail. By then you will be well acquainted with things like preparation before gluing or filleting, taping, clean up, etc.. so keep in mind what you learn early on or refer back to earlier descriptions. Waiting for epoxy to cure before moving to the next step is assumed and not always specified.

### FIBERGLASS

**4 oz** cloth is used on most of the interior surfaces and the inside faces of the hull panels. The PT 11 kit comes with 26 ft of 50" wide cloth.

**6 oz** is used for glassing the outside of the hull and taping the chines. The kit comes with 19 ft of 50" wide cloth.

**8.9 oz. # 7725** is a weave of cloth developed for aircraft construction. It is stronger than normal woven cloth of this weight and takes less epoxy to saturate and fill coat. This cloth is used for glassing the hull bottom and for local reinforcements. The kit comes with 4 ft of 50" wide "Rutan" cloth

**Peel ply** is used for smoothing the chine tapes and other glass taping. The kit comes with 75" of peel ply.

**All fiberglass cloth and peel ply, (including scraps) should be kept on a roll and treated carefully to avoid wrinkling and to keep it clean.**

### FILLERS

There are four fillers (for thickening epoxy) used in the building of the PT ELEVEN.

These fillers are usually used in combination with other fillers to achieve desired properties as described in the epoxy section of the manual.

The fillers needed are:

Colloidal silica, (WEST SYSTEM® 406), 407 Low-Density Filler, 404 High-Density Filler, and 410 Microlight Faring Filler®. (the numbers here are WEST SYSTEM(™) reference numbers)



The PT 11 requires: One large (5.5 oz) tub of colloidal silica.(WEST SYSTEM® ref: 406-7)  
 One large tub (12 oz) of 407-15 Low-Density Filler.  
 One small tub (15.2 oz) of 404 High-Density Filler (When you order our optional WEST SYSTEM epoxy kit,  
 One small tub (2 oz) of 410-2 Microlight Faring Filler® these fillers are part of that kit)

Other epoxy supplies are talked about in the epoxy section of the manual.  
 A list of hardware store tools and materials needed for building the PT 11 follows.

#### Tools:

-A small router is necessary.

A laminate trimmer router is the most appropriate and most economical.

-Three router bits are required: One bottom bearing flush cutting bit, one 1/4" round over bit, and one 3/16" round over bit.

-A random orbit sander is required.  
 One that connects to a vacuum would be best.

-A jigsaw is used occasionally.

-A hot melt glue gun is needed.  
 These are cheap and most useful.  
 -A heat gun or Hair dryer.

-A block plane and sharpening stone will be very helpful.

-A combination square (seen throughout the manual) is used for scribing pencil lines.

- 10, 2" C-clamps are needed and can be seen in the manual.

-A small drill bit set (in 64ths of an inch) is needed.

-Wire cutters, vise grips, and needle nosed pliers are needed for wiring the panel edges

-Sharp scissors, a **snap-off blade knife** (seen to the right), and an X-Acto® knife are needed.. The knives can be the most dangerous tools in the shop. Never cut toward hands or arms

**# 6 coarse thread drywall type screws of two lengths are needed. 1" long & 1 1/4" long.**

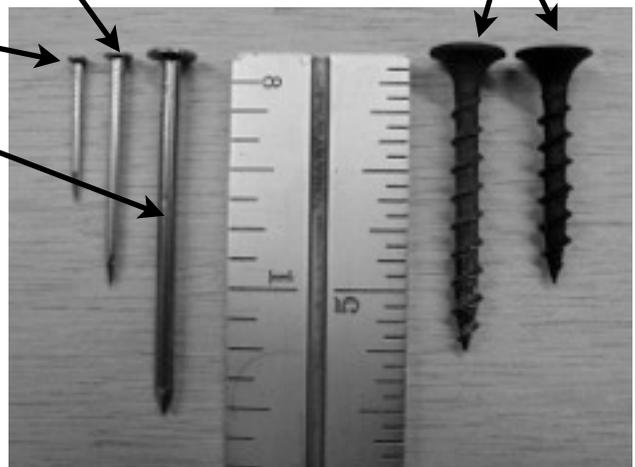
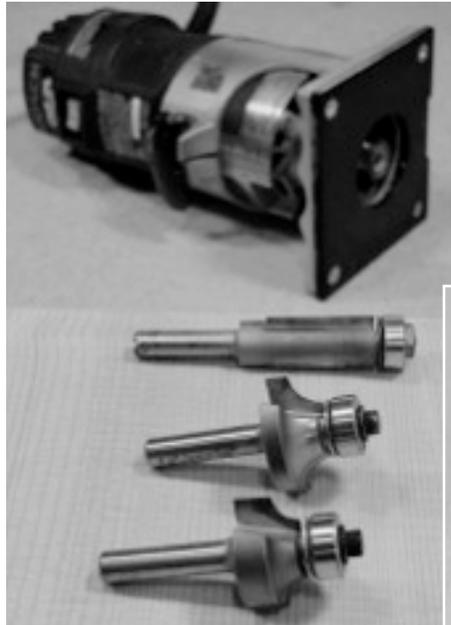
**Wire nails of 2 sizes are needed. 5/8" long #19 nails and 1" long # 17 nails.**

**4 penny nails 1 1/2" long are needed.**

-A small roll of 4 mil clear plastic sheeting and a roll of 2" wide clear plastic packing tape.

-One sheet of 3/4" particle board and a few 8' 2x4's will be needed for a table.

-Sheet sandpaper. 80, 100, 120 & 220 grit



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