

Preparations:

Tools required to initially install the sail kit to your Porta-Bote:
Center punch, electric drill, 5/16" (8mm) drill bit, Phillips screwdriver

Terms: The instructions use ordinary English terms, followed in brackets by the corresponding nautical terms, e.g. 27' "rope" [[main sheet](#)].
Also, "rope" is used instead of the term, "line."

Measurements are in feet and inches, followed in parentheses by metric equivalents, e.g. 9' (3m).

Asterisks * precede steps with associated pictures, and picture captions refer to one or more steps.

Parts List

Part No. Description

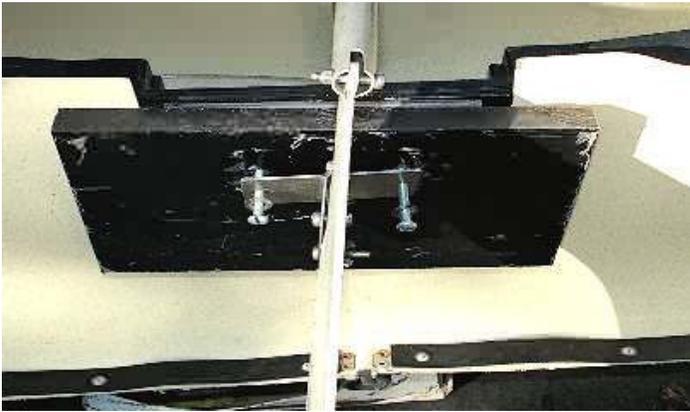
L-1	Sail: custom designed and manufactured for Porta-Bote by world renowned sailmaker <i>Rolly Tasker</i>
L-2	String [lanyard], 36" x 1/8" (1m x 2mm) for stretching out the sail
L-3	2-Tubes , 1" (2.5cm) diameter by 12' (4m) long. The tube with 3 eye straps is the lower, horizontal tube [boom]. The tube with 2 eye straps is the upper, inclined tube [gaff].
L-4	Mast , 10' x 1.5" (3.3m x 3.75cm) with 5 cables and ring bolt [gooseneck] attached to the mast
L-5	9' (3m) rope [bow stay]
L-6	21' (7m) rope [halyard] for raising the sail up the mast
L-7	27' (9m) rope [main sheet] for catching the wind with the sail
L-8	2 pulleys [blocks] for attaching the 27' (9m) rope [main sheet] to the lower tube [boom]
L-9	Rudder , steering tube [tiller], and extension tube
L-10	6' cable [traveler] with pulley [block] for switching the main sheet over the rudder steering tube [tiller] and extension tube.
L-11	Two 4' (1.3m) aluminum panels [leeboards] with 8" (30 cm) round pads
L-12	Packet of metric bolts with wing nuts

Note: If the rope is supplied in one piece, cut it into the lengths indicated above, and use a cigarette lighter to seal the cut ends to prevent them from fraying.

2- Bote set-up: Open your bote and insert all seats; refer to the bote instructions.

3- * Rudder holes: There are 2 pre-drilled “pilot holes” in the motor mount block.

First, look under the motor mount block hinged on the transom to verify that the bote’s plastic membrane is not caught under the hinge of the motor mount block. Holding down the motor mount pad against the plastic membrane will enable you to drill straight holes through the bote’s plastic membrane and transom.

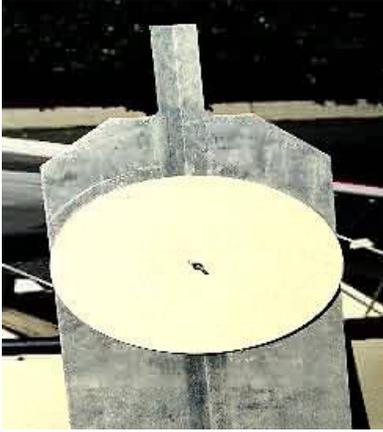


Step 3- Rudder Holes & Bolts

Using the 2 pre-drilled “pilot holes” in the motor mount pad as a template, drill 5/16” (8mm) holes through the membrane and transom. This hole size facilitates insertion of the 3” x 1/4” (40mm x 6mm) rudder bolts.

Attach the rudder to verify its installation. Since the rudder would drag on the ground, remove it until the boat is next to or in the water.

4- * Leeboard holes: To install the leeboards, drill a 5/16” (8 mm) hole on each side of boat, as follows:



Step 4 - Leeboard & Pad

- 10' boat: 1 ½" back (aft) of the rear edge of the center seat and in line with the seat channel that holds the edge of the seat
- 12' bote: Above the center seat, centered in the cutout of the foam floatation.
- 14' bote: Above the 2nd seat from the front, centered in the cutout of the foam floatation

Note: If you are using the [Porta-Dolly](#), wait to attach the leeboards until you are ready to launch and have removed the Dolly. Then, insert a 1.5" x ¼" (30mm x 6mm) bolt starting through the hump, not the valley, that runs the length of the leeboard. Add the 8" (30 cm) round pad on the bolt between the leeboard and the bote to avoid scraping the hull. Then, insert the bolt through the hole you have drilled in the side of the bote. Add a washer on the inside and tighten with a wing nut. Tighten just enough to prevent the leeboard from slipping.

Sail Kit (Lateen) - How to set up for sailing. Special Notes:

First - If you don't know how to sail....for your safety, get lessons at a sailing school.

When setting up any sail, it is well to know the knots called: bowline, clove hitch, cleat hitch, and stopper knot. If you need guidance with knots, there are good sites you can search on the internet, e.g. "bowline knot".

NOTE: Make sure when setting up the sail kit that there are no power lines that the mast and sail could touch, either where you set up the bote or on your way to the water or from the water.

- 1- **Bote set up:** As stated above, set up the bote with all seats and the transom. **You may skip installing the top transom bolt on each side.**
- 2- * **Traveler:** Install this 6' (2m) cable [traveler] with pulley [block] across the rear of the bote. Its eye bolts replace the upper bolt on each side of the transom, from inside the bote.
- 3- * Add a washer and wing nut outside the boat and tighten. ("**Step 20**" shows a picture of a traveler completely installed.)



Step 2 & 3 - Install cable [traveler] with pulley [block]

- 4- * **Mast step:** Place the metal plate [mast step] on the front seat. The smaller diameter collar goes into the socket at the middle of the front seat so that the bent edges of the mast step reach over the edges of the seat.



Steps 4 & 5 – Mast Step & Turnbuckles

5- * **Turnbuckles:** Lay the mast down, centered along the length of the bote, with the cables toward the front [bow] of the bote. To allow for tightening later, twist each turnbuckle so that it is $\frac{3}{4}$ expanded.



Step 5 & 6 – Turnbuckles & Back Stay Preparation

6- * **Back Stays preparation:** Attached to the mast are 5 cables; two cables end in chains with eye bolts. On the chain is a clip [shackle]. Depending on the size of your bote, the shackle and eye bolt on each chain need to be attached to the following chain link:



Step 6 & 7 - Back Stay Preparation

<p>For the 14' bote, attach to the LAST chain link For the 12' bote, attach to the 3rd from the last chain link For the 10' bote, attach to the 5th from the last chain link</p>

7- **Back stays:** Each cable with a chain goes from the mast to one end of the 2nd seat. Remove each seat pin from this seat and replace it with an eyebolt shackled to the chain. The wing nuts attach to the eyebolts below this seat.

8- * **Bow stay:** Tie the 9' (3m) rope [bow stay] through one bow grommet - a "bowline" knot is best. Run the rope through the loop of the bow stay cable. Return the rope through the opposite bow grommet. Next, run the rope to the

lower mast cleat directly or under the front seat. Best is to avoid running the rope from one grommet to the other one.



Step 8 - Bow Stay

9- Halyard: Run half the 21' (7m) rope [halyard] through the hole [eye strap] at the end of the mast opposite the cleats.

10- Set mast: After inserting the halyard through the mast eye strap, raise up the mast from the back of the boat. Place the bottom of the mast into the collar of the metal plate [mast step] previously placed at the middle of the front seat. Angling the mast up, push hard away from the cables with chains and tie [hitch] the rope [bow stay] to the mast's lower cleat.

If necessary, take down the mast and relocate the shackles and eye bolts on the [back stay chains] so that when raised, the mast is vertical.

11- Shrouds: The short, remaining side cables [shrouds] run from the mast to the ends of the front seat and their eye bolts replace its seat pins. Below the front seat, install each wing nut on an eye bolt.

12- Set turnbuckles: Tighten all turnbuckles the same amount on each side of the mast only until the slack in the cables is removed. Any additional cable slack can be removed while sailing to avoid over tightening the cables.



Steps 13 & 14 - Sail Set-up & Out-hauls

13- * **Sail set up:** Lay out the sail on a clean surface.

The edge of the sail with 2 slots is the top edge [the luff]. One 12' x 1" (4m x 2.5cm) tube [the gaff] has 2 eye straps; one of these eye straps matches up with a slot along the sail luff. Fully insert the end of this tube without an eye strap into the sail luff sleeve.

The edge of the sail with 3 slots is the bottom edge [the foot]. The other tube has 3 eye straps, two of which match up with slots in the sail foot. Fully insert the end of this tube without an eye strap into the sail foot sleeve.

14- * **Out-hauls:** Tie the 36" x 1/8" (1m x 2mm) string to the sail grommet. Tie the middle of this string to the grommet so that the string's two ends [out-hauls] are available for separately stretching out the sail.

The sail should be straight along the tubes, with no wrinkles either parallel or perpendicular to the tubes. To avoid distorting the sail sleeves, do not tie together the ends of the out-hauls or the ends of the tubes.



Step 15 - Halyard Set-up

15- * **Halyard set up:** At the sail slot where the top tube [gaff] has an eye strap facing inward toward the sail, tie one end of the rope [halyard] that runs up to the top of the mast. Tie the knot close to the gaff so that the sail will be raised up all the way to the top of the mast.



Step 16 - Mount Sail - Insert Gooseck to Boom

16- * **Mount sail:** Raise the bottom tube [boom] to the mast where the cables are attached. Insert the mast ring bolt [gooseneck] through the hole in the lower tube [boom] at the sail slot closest to the exposed ends of the tubes. Tighten its wing nut down against the bottom of the bolt threads sufficient to prevent the wing nut from falling off during sailing.



Step 17 - Attach (2) pulleys [blocks] to Boom

17- * **Sheet blocks:** Using clips [shackles], attach the 2 pulleys [blocks] to the bottom tube [boom]. For each shackle, insert its pin through the ring included on a boom eye strap and rotate shackle's pin until it snaps in place.



Step 18 - Install Rope [Mainsheet]

18- * **Main sheet:** Run the 27' (9m) rope [main sheet] through the boom pulleys [blocks]. From the block furthest from the mast, attach the end of the main sheet to the traveler pulley [block] at the back end of the bote. Tie the main sheet to the narrow end of the traveler block so that the block's roller can run along the cable. A bowline knot is best. At the end of the main sheet coming from the block closest to the mast, tie a stopper knot to avoid the main sheet backing out of the boom pulleys.



Step 19 - Leeboard attached

19- * **Leeboards:** Take the bote to the water, and turn the bote so that it will launch bow first into the water. Remove the Porta-Dolly. Attach the leeboards



Step 20 - Rudder and cable [Traveler] Installed

20- * **Rudder**: With the steering arm and its extension UNDER the cable [traveler] at the back of the bote, attach the rudder with the rudder bolts, washers and wing nuts.



Step 21 - Initial sail raising

21- * **Raise sail**: While allowing the sail freedom to turn into the wind, pull the halyard to raise the top of the sail to the top of the mast. Tie [hitch] the halyard to the mast's upper cleat.

22- **PFDs**: Put on Coast Guard approved life preservers {Personal Flotation Devices} on everyone going in the bote. The Coast Guard fine for not having a PFD for each person aboard is \$2,500! Wearing a PFD is wise because accidents rarely include time to put one on.

23- **Launch**: Push the bote into water deep enough for the leeboards and rudder to be vertical. Rotate the leeboards and rudder into vertical positions. On the bottom of the rudder bracket – and on the leeboards, tighten the wing nuts only sufficient to keep them vertical, unless they bump something under water.

24- Safety: In the event that the bote capsizes, swim out from under the sail because suction between the water and sail could prevent a swimmer from getting to the air. To turn the bote up-right, release the rope [main sheet], turn the bote upright, and bail out or row it to shore. The bote will not sink. Do not leave the bote unless it is safe to do so.

Sail Kit (Lateen) - Break down

1- Landing: Sail to a favorable landing location, raise the leeboards up along the hull, and release the main sheet. Keep the rudder straight; it will kick up when land lifts it. Hold the rudder up once land is reached to avoid hurting the rudder hinge.

Avoid locations with overhead power lines between your landing location and the location where you intend to pack up the sail kit.

2- Lower sail: Release the halyard to lower the sail. It is kind to the sail to release the string [out-hauls] when the sail is not in use.

3- Rudder & leeboards: Remove the rudder and leeboards, replacing the washers and wing nuts on the bolts to avoid their loss.

4- Wheels: Attach Porta-Dolly wheels and avoiding power lines, move the bote, leeboards, rudder, and life preservers (PFD's) to the location where the bote can be packed up and the parts stowed.

5- Traveler: Remove the 6' cable [traveler] from the transom. Replace the wing nuts on the eye bolts to avoid their loss.

6- Boom: Remove the lower tube [boom] from the mast ring [gooseneck]. Replace the wing nut to avoid its loss.



Step 7a- Stowing the sail

7a/b-* **Stowing:** Roll the sail up and tie the rolled up sail along side the booms. Avoid wrapping the sail around the tubes material.



Step 7b- Stowing the sail

8- Lowering the mast: Remove the side cables [**shrouds**] from the edges of the front seat. While holding the mast from falling, take down the mast by uncleating the bow stay and easing it out. Remove the cables [**shrouds and stays**] from the 2nd seat. Replace the wing nuts to avoid their loss. Remove the rope [bow stay] from the grommets.

9- Pack up: Pack up the bote. If you have kept the plastic shipping sleeve, insert the sail assembly into this sleeve to protect the sail and tubes. Securely tie down and transport the bote, mast, and sail assembly. Store the bote, sail assembly, and parts to avoid their damage or loss.

10- Planning: Get ready for your next sailing adventure, and attempt to keep the sailing stories believable, please.

Well Done !