

Poor Man's Bow Thruster

Nothing in boating exudes seamanship skills more than slipping a boat into a tight berth. It's a choreographed maneuver where control of the boat shifts between captain and crew. The concepts are simple. All it takes is a long line and practice.

By Peter Pisciotta

I recently watched a couple bring a 50' (15m) trawler into a fuel dock. It was a single screw boat and they had no bow thruster. To complicate matters, a strong breeze was blowing them off the dock. They were successful where others had failed because they took their time and used a springline, a.k.a. a warpline, to predictably control their boat.

A springline is simply a line used to maneuver (or warp) a boat in close quarters. One end is connected to the boat, the other to a shoreside pivot point, typically a dock cleat or piling. When the boat is put in gear, a lever/fulcrum effect is established and the boat is forced to rotate. It's an age old seagoing skill that is too often neglected by recreational boaters.

What you Need

First, you'll need a long warping (spring) line. The crew remains aboard throughout the maneuver, so the line needs to loop around a piling, cleat or other fixed structure and return to the boat so the crew can control both ends. Light, 1/2"(12mm) three-strand nylon line is great for most boats up to about 50' (15m) because the added stretch is helpful. The ends should be whipped and free of loops, knots and splices.

You'll need strong cleats on both the boat and whatever is to be attached to ashore. Because the line is so stretchy, a broken cleat will become a lethal projectile. Sailors often use primary winches instead of a stern cleat. Never, ever use a lifeline stanchion or a deck railing for this job.

Lots of large fenders are must haves. At least one large round ball fender

serves as a perfect pivot point for departing maneuvers. A fenderboard also works well. If you have the good fortune to own a boat with substantial rubrails, you may wish to forego fenders, especially when working around wooden docks and pilings.

Once you have the proper equipment, set aside some time to practice a few typical routines using warping lines to approach a dock, depart a dock and if you live in an area where backing into a slip is customary (or necessary), backing into a slip.

Two Ways to Approach a Dock

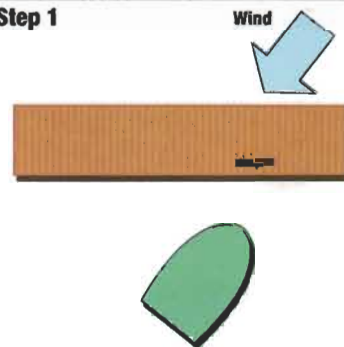
As in the opening example, most boats chose to dock at an end-tie, bow first, but adverse winds or currents can force the bow to blow off the dock before the boat can be secured. Even lightweight, twin-engine powerboats have trouble with a strong wind blowing off the dock.

A solution to this is to approach dead into the wind, loop a line around a dock cleat or piling and power either forward or backward against the line forcing the boat to rotate toward the dock through judicious rudder usage and a gentle hand on the throttle. You can approach the dock either bow first or stern first. Which is best? It depends on your boat. Generally, backing into the wind is easier than trying to hold the bow steady into the wind (the boat actually wants to be broadside to the wind). For boats that are either very difficult to control in reverse or have poor stern access, approach bow first.

Stern-first (backing-up) approaches generally use a very short warping line and the boat just powers forward once

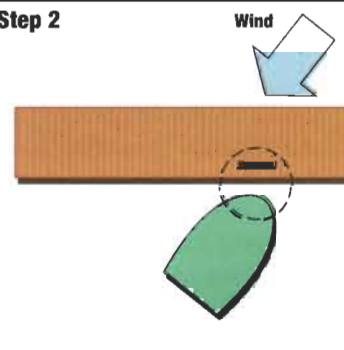
Approaching a Dock Bow First

Step 1



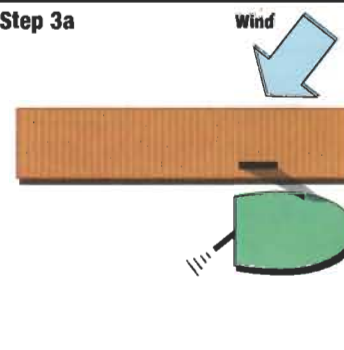
Approach directly upwind and line up bow with dock cleat.

Step 2



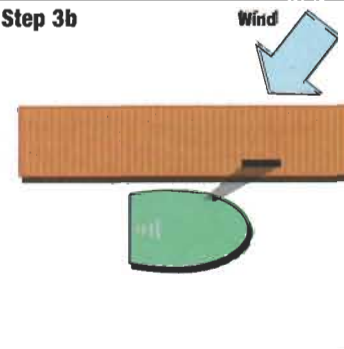
Loop line around cleat.

Step 3a



Power forward to hold boat against dock OR...

Step 3b

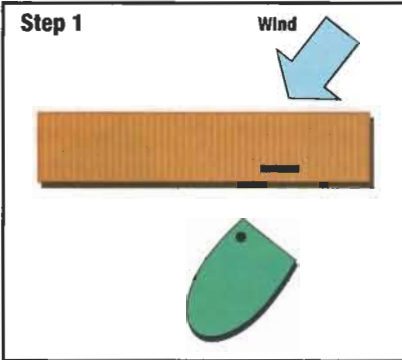


...power in reverse. This may require using a midships cleat.

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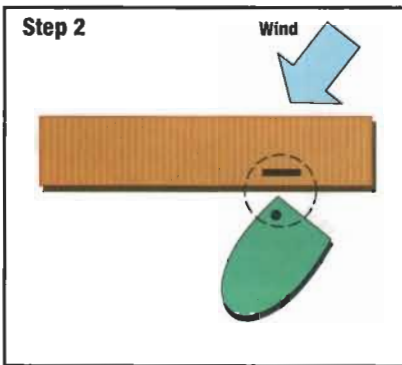
Approaching a Dock by Backing Into The Wind

Step 1



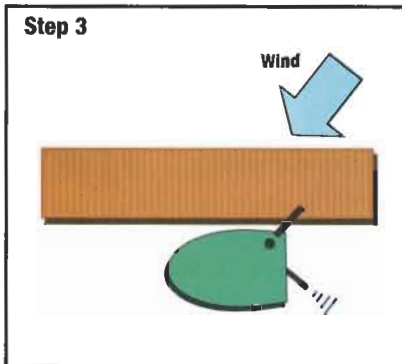
Back directly into the wind. Line-up stern quarter cleat with dock cleat.

Step 2



Crew loops line around dock cleat.

Step 3



Captain powers forward and moves rudder to force boat against dock.

Step 1

The helmsperson (herein referred to as captain) communicates with the crew and prepares equipment and dictates its positioning. Decide whether to approach the dock bow-first or stern-first and connect a free end of the warping line to the appropriate deck cleat. Discuss what the shoreside target will be.

Step 2

Approach directly into the wind or current. Where there are both, estimate a compromise vector. The wind moderates boat

the line is made fast to the dock. Bow-first approaches must use a much longer line and can either power forward so the line becomes a spring-line when the maneuver is complete or back-down on the line so it stretches ahead of the bow. Backing down is usually more predictable but there may not be room for this maneuver. Also, if the cleat is very close to the center-line of the boat (right at the bow for example), the boat may not rotate toward the dock. Try attaching the warping line to a midships cleat instead, in which case the crew stands at the bow to catch the dock-side cleat, then walks the line back to the midships cleat

Approaching a Dock

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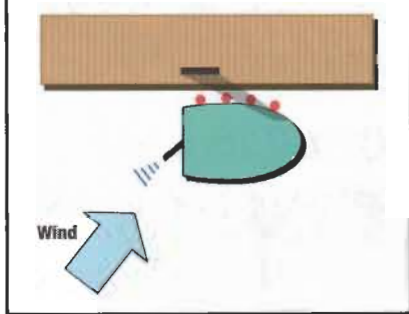
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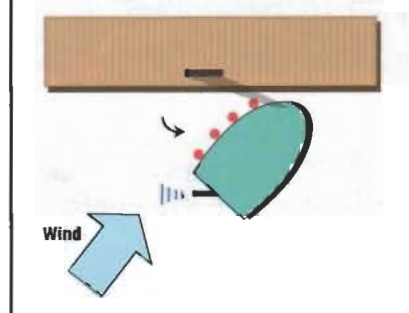
Departing a Dock

Step 1



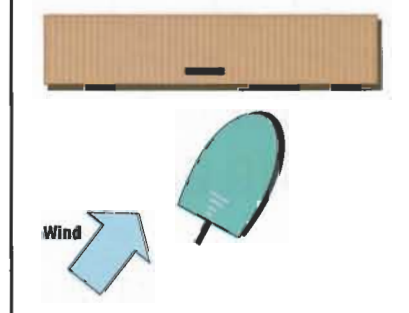
Set springline.

Step 2



Shift rudder and rotate boat.

Step 3



Put engine into neutral, line goes slack, crew retrieves line. Captain backs away.

speed and controls your approach. For bow-first approaches, the captain will be unable to see the cleat so the crew must guide the captain with hand signals. Form a wide, open, drooping loop in the line by holding it between outstretched arms.

Step 3

Crew loops dock cleat or piling. Once the crew has looped the cleat, the captain motors against the line to gently take up slack. Once the line is tensioned, the captain puts the gear in forward (throttle setting will depend on the force needed to move the boat) and

leaves it there for the rest of the maneuver. Captain uses the rudder to maneuver against the tensioned warping line. When the boat is against the dock, leave the transmission in gear to hold it in place until the crew secures additional docklines.

Departing a Dock

What if the wind is blowing onto a dock and you need to depart? You can use the same technique in reverse to rotate the boat away from the dock.

Step 1

Set a springline (it will become a warping line once the maneuver is underway) from the bow leading aft to a dockside cleat at least half a boat length aft of the bow. Simply loop the line around the dockside cleat and return the free end to the bow so the crew can easily retrieve the line from onboard. The captain gently powers forward with the rudder hard over away from the dock taking up slack in the line. Once the line is tensioned, leave the gear in forward and the boat will find equilibrium against the dock.

Step 2

The captain slowly shifts the rudder to rotate the boat away from the dock. Don't rotate past the eye of the wind. If the boat can rotate until it's perpendicular to the dock with the stem (bow outside) pressed against the dock. There is a risk of damage to the stem if the dock is rough or unprotected or, with a sailboat, if the bowsprit overhang interferes with dock structure. Use your best judgment.

Step 3

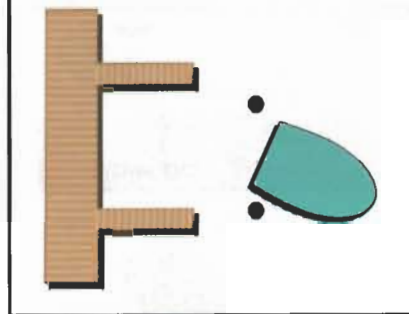
As soon as the captain puts the boat in neutral, the long warping line goes partially slack. The crew then unfastens one end and pulls the long line aboard. The crew signals the captain as soon as the line is clear and the captain backs away.

Backing into a Slip

Boats are frequently backed into their

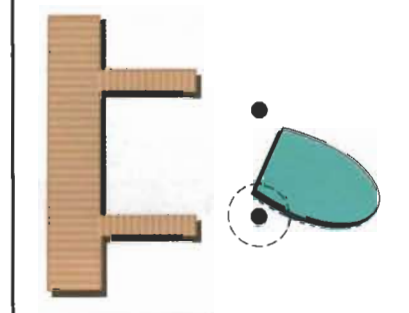
Backing into a Slip

Step 1



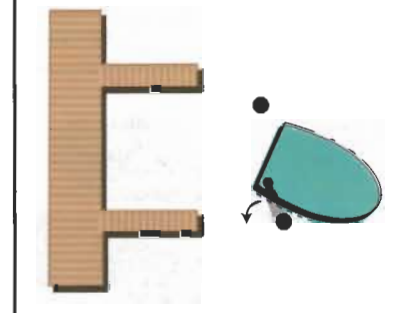
Captain lays stern quarter against piling.

Step 2



Crew loops line around piling, prepares to snub line.

Step 3



Captain backs boat while crew snubs line forcing stern to rotate around piling

slips. Typical slip configuration is two pilings at the head of the slip where bow lines are attached. These pilings are usually wooden and flex nicely when a boat is laid against them. Here's where having solid rubrails pays off. Follow these steps for perfect execution.

Step 1

Line up on the slip. Essentially, you will make a J-turn so the stern is lined up with the slip. The boat itself will probably be cockeyed, but the stern should be between the two pilings.

Joe VanVeenen


Key at this stage of the maneuver is to know which direction the stern drifts in reverse and lay that stern quarter near or against the corresponding piling. You may need to shift the rudder around and give short blasts of forward thrust to maneuver the stern sideways.

Step 2

Crew loops piling. Start with one end of the warping line fastened to the stern deck cleat. Once the stern quarter is against the piling, the warping line must be looped around the piling. You can practice various lasso techniques or use a specially designed device but the crew needs to be fairly crisp getting the line around the piling. Crew brings the free end back to the same stern deck cleat and takes a couple wraps around the cleat in preparation to snub the line as the boat backs into the slip.

Step 3

Backing and snubbing. Once the piling has been looped, the captain begins to back the boat. It makes no difference where the helm is because the turn is controlled entirely by the crew snubbing the warping line.

Spending a few quiet hours practicing when there is no audience on the dock will result in increased confidence to venture into unknown areas and explore new harbors. Even if you have a bow thruster, warping a boat is an excellent skill to have in your arsenal. 

About the author: Peter P. Pisciotta is the owner of SeaSkills Personal School of Seamanship (www.SeaSkills.com), which offers yacht delivery endorsed by Nordhavn, West Marine and Willard Marine, new boatowner training, boat handling and boat docking instruction and spouse/crew instruction.

7 Tips for Success

Patience. Take time to set up your maneuver. Try to set your approach directly into the elements. Take up slack gently to avoid snapping the warping line. Once the line is under load, keep it loaded by leaving the boat in gear with a controlled application of throttle. Common sense prevails. Bow-first approaches require very long warping lines. The longer the line, the faster the boat rotates toward the dock.

Prepare. The warping line will often be a 100' (30.4m) coil of line and can be somewhat unwieldy the first few times maneuvers are practiced. Make sure it runs free of all obstructions including stanchions, rails and rigging.

Communicate. Warping a boat is a choreographed maneuver. Both captain and crew must be on the same wavelength. Take a few moments to fully discuss the maneuver.

Practice. Warping a boat is not particularly difficult, but it takes coordination and timing. Every boat responds a little differently so try many different permutations (backing-down and going forward or bow, stern and midship cleats).

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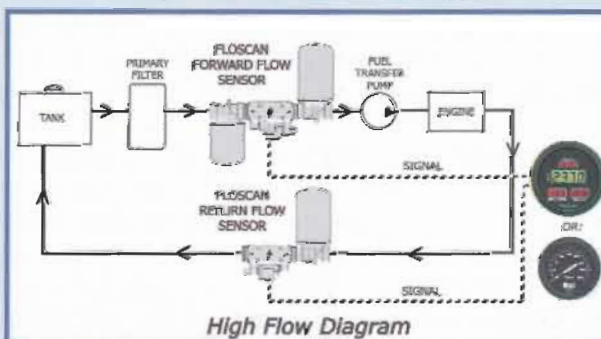
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