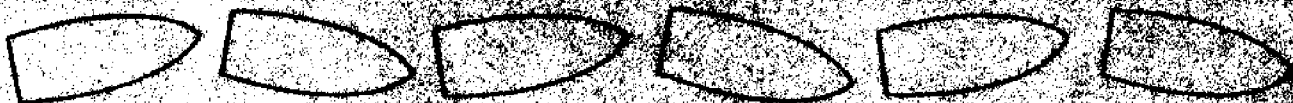


HANDLING BOATS IN DIFFICULT SITUATIONS



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BY DAN COLSON

Issued by the Georgia Sea Grant College Program
The University of Georgia, Athens, Georgia
Marine Extension Bulletin No. 9, February, 1987

GAUS-H-87-001 C2

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HANDLING BOATS IN DIFFICULT SITUATIONS

BY DAN COLSON

Many boat owners and operators have private docks or single slips for mooring their craft. Others of us are not so fortunate; we must learn to tie up our boats in a wide variety of situations. In 32 years as a fisherman, I have encountered many odd and difficult mooring situations caused by boats, high winds and tides. This publication attempts to share some of my experience. I hope that it will help you handle your boat in difficult situations.

MOORING LINES

Mooring lines should be made of high-quality nylon. Never make lines from rope that will **not** stretch, such as hemp, polyethylene, or polydacron. Mooring lines must have the capacity to stretch but also to maintain strength when tides are either abnormally high or low.

The diameters and lengths of mooring lines are determined by boat size, as shown below:

Boat Length (feet)	Mooring Line Diameter (inches)	Bow/Stern Line Length (feet)	Spring Line Length (feet)
20' - 30'	1/2"	40'	25'
30' - 40'	5/8"	60'	35'
40' - 50'	3/4"	80'	45'
50' - 75'	7/8-1"	100'	60'

Mooring lines include the bow, stern, bow spring, and stern spring lines (Figure 1). Bow and stern lines secure the boat in a parallel position alongside a dock, float, or other moored object. Spring lines allow a boat to rise and fall without moving ahead or astern or twisting into the dock.

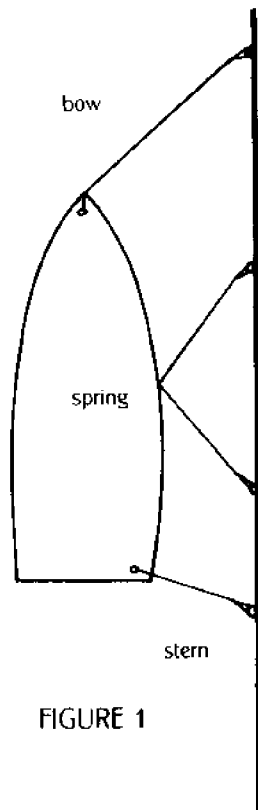


FIGURE 1

Eye Splice

When making up lines, splice an eye in one end approximately three feet in diameter (Figure 2). Always put the end with the eye on the dock cleat or piling. This enables you to throw the line over (or take the line off) a piling or cleat from your boat without requiring dock assistance. To cast the line, hold the rope as if to lasso the piling or cleat.

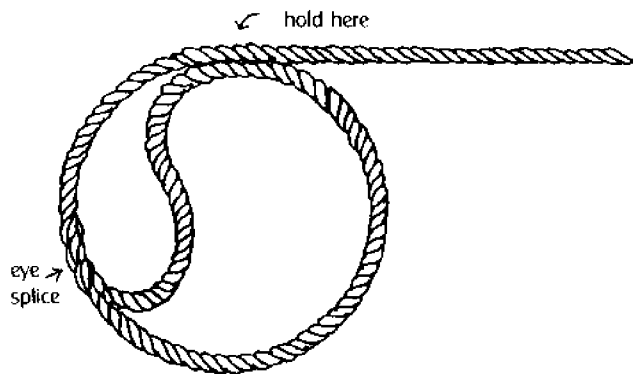


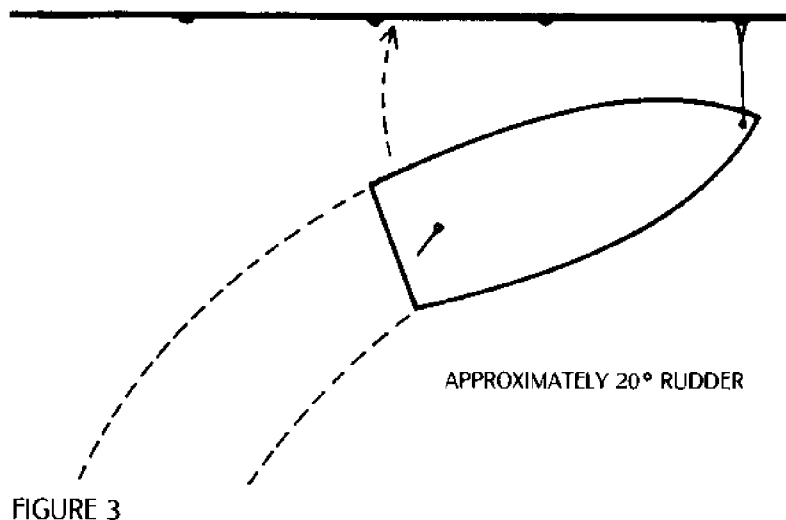
FIGURE 2

APPROACHING THE DOCK

SITUATION NO. 1 TYING UP WITH NO WIND OR TIDE

Ease your boat slowly into the dock at a slight angle. Secure the bow line first, then the stern or either of the spring lines (Figure 3). When the bow of the boat is even with the bow line piling, put the boat in reverse. The stern will continue to ease toward the dock. Make fast all lines.

Note: Boats with single right-hand propellers have a tendency to back toward the port side. Therefore, portside landings are favored over starboard landings.



SITUATION NO. 2 TYING UP AGAINST THE TIDE WITH WIND BLOWING BOAT AWAY FROM THE DOCK

Approach the dock as in Situation No. 1, but with a little more power. As the boat nears the dock, catch the bow and stern spring lines simultaneously if two deckhands are available. If only one person is available, catch the stern spring line first. Stop the boat's forward motion by reversing the thrust, and secure the stern spring line to a bit or cleat. Now ease the boat forward. It will pull itself into the dock. Hold in slow forward until all other lines are made fast.

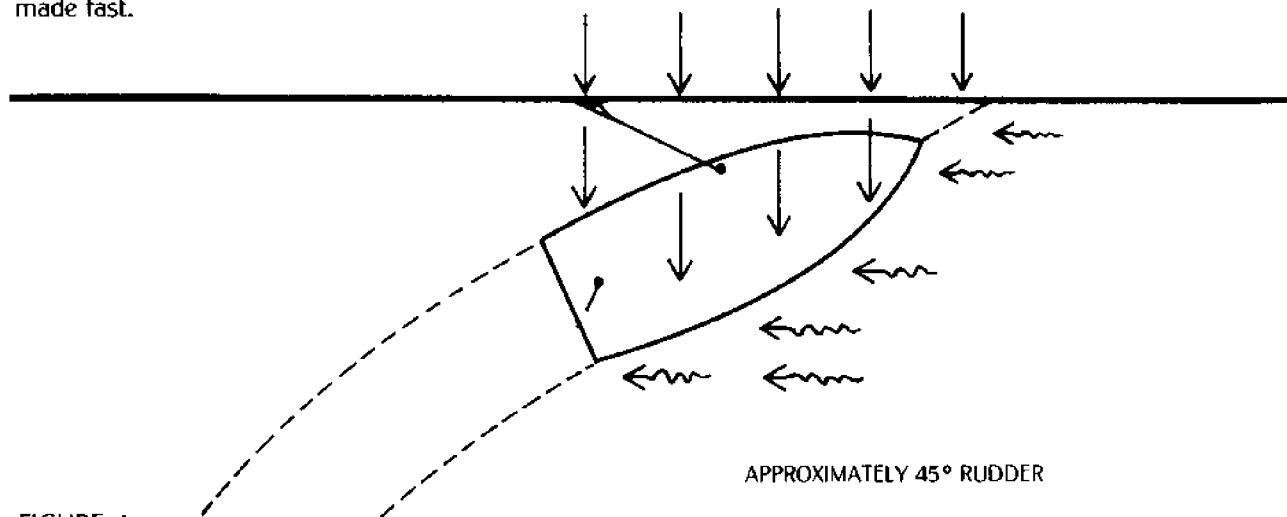


FIGURE 4

SITUATION NO. 3 TYING UP AGAINST THE TIDE WITH WIND BLOWING BOAT TOWARDS THE DOCK

Approach the dock as in Situation No. 2. Make sure not to approach with too much angle or forward speed, as the tide and wind will push the bow into the dock too fast. Come in almost parallel with the dock and allow the wind and tide to do the rest.

Use either the bow or stern spring line first. It makes no difference as long as the boat has enough forward motion to maintain position. Cast and secure the stern line last.

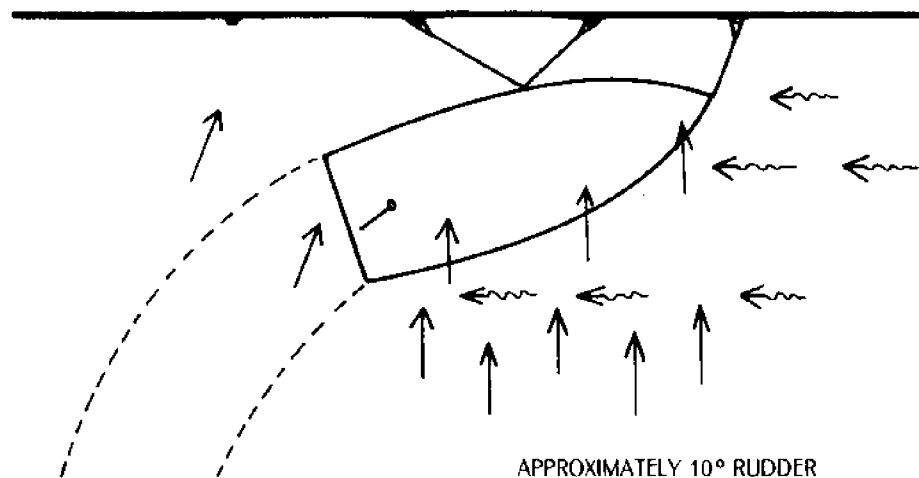
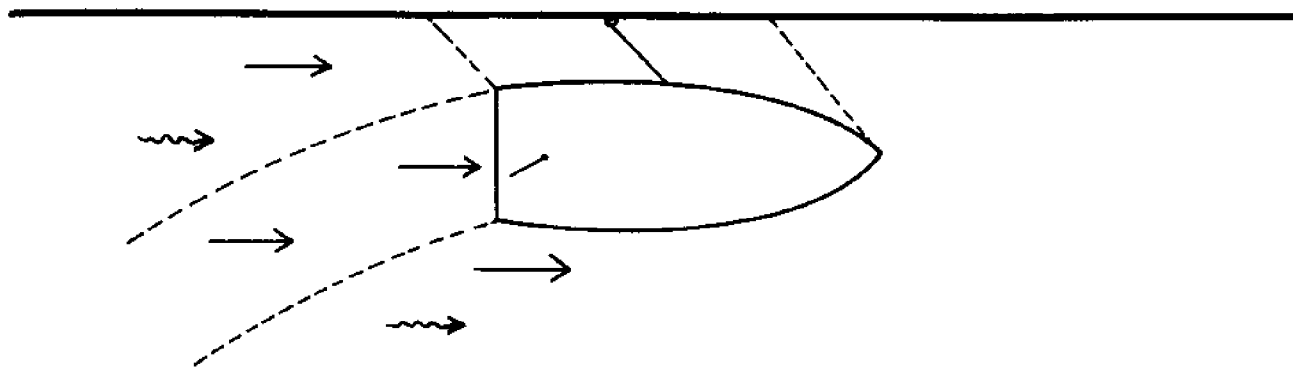


FIGURE 5

SITUATION NO. 4 TYING UP WITH WIND AND TIDE AGAINST YOUR STERN

Approach with sufficient power to give you complete control of your boat. Arriving at the berth, apply ample rudder angle to kick the stern toward the dock and back down hard (Figure 6). This action will move the stern into the dock first. The current will push the bow to the berth. Cast the stern spring line first. Hold the spring line tight as you use forward motion to pull the boat into the dock. Reverse power briefly and take up slack in the spring line to get the boat in the final position. Hold in slow forward with stern spring line tight until other lines are made fast.



APPROXIMATELY 25° RUDDER

FIGURE 6

SITUATION NO. 5 APPROACHING THE DOCK WITH WIND AND TIDE AGAINST THE STERN AND BOATS ON EACH SIDE OF THE BERTH

This docking situation occurs frequently at crowded waterfronts. Practice and self-confidence are required to master it. Keep enough power on the engine to maintain rudder control at all times. Do not be afraid to use the power, but let the clutch have time to change before giving too much throttle to the engine. Use the wind and tide to your advantage. Approach with a little power and parallel to the boats and dock (Figure 7). Stay as close to the outside boat as possible. As the stern clears the outside boat, kick the stern into the dock by using the rudder and forward thrust (Figure 8). Back down hard to reduce the boat's forward motion. You will be moving fast at this moment due to the power needed for rudder

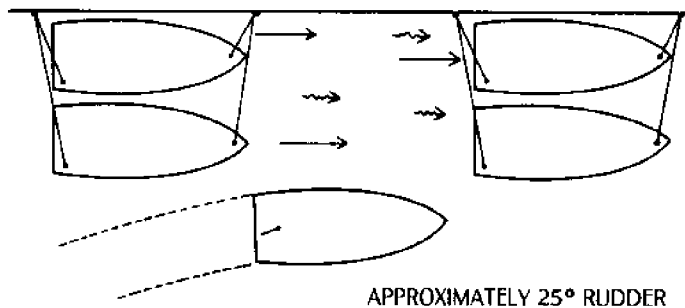


FIGURE 7

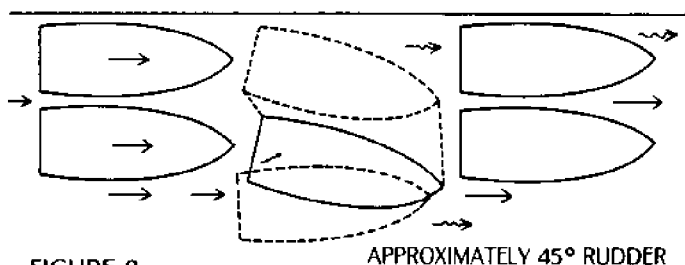
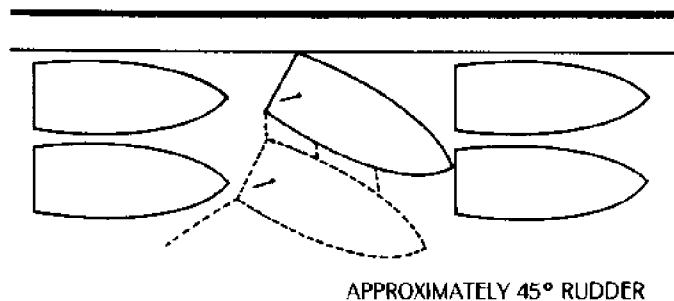


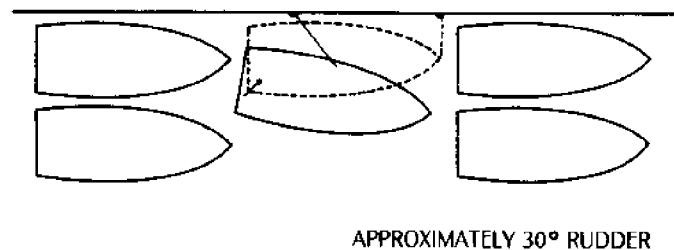
FIGURE 8

control. The wind and tide are also contributing to your speed. As you back down, the stern will move toward the dock. Take your time. Keep the rudder in position to kick the stern into the dock. It may be necessary to kick the stern in several times, but be careful not to let the stern move in too fast (Figure 9). If it does, kick it out a little, always keeping an eye on other boats. When close enough to get a line to the dock, cast the stern spring line. Hold the spring line as you move forward. It will pull your boat to the dock. Take up slack as you back down (Figure 10). Do this as many times as needed to get the boat into the dock. At the dock, tie off the stern spring line and hold position with slow forward power until all lines are made fast.



APPROXIMATELY 45° RUDDER

FIGURE 9



APPROXIMATELY 30° RUDDER

FIGURE 10

SITUATION NO. 6 APPROACHING THE DOCK WITH WIND AND TIDE AGAINST THE BOW AND BOATS ON EACH SIDE OF THE BERTH

This docking situation is easy, but it requires patience. Approach parallel to the other boats. Using power and rudder, kick the bow toward the dock. Be careful not to proceed too fast. This docking requires less power than stern docking (Situation No. 4). Kick the stern in or out to maintain the boat at the correct angle with the bow coming in first (Figures 11 and 12). Cast the stern spring line as soon as possible, and work the bow to the dock by using the stern spring line as in Situation No. 4. When the boat is in the proper docking position, hold it in place with slow forward power. Make fast all lines.

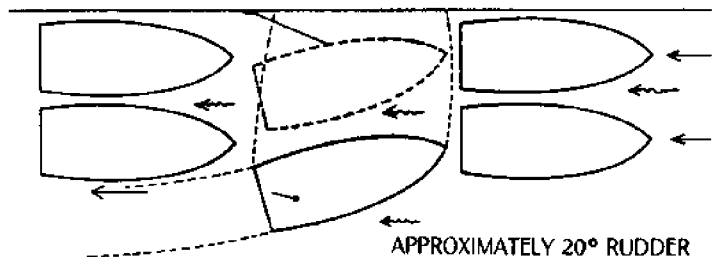


FIGURE 11

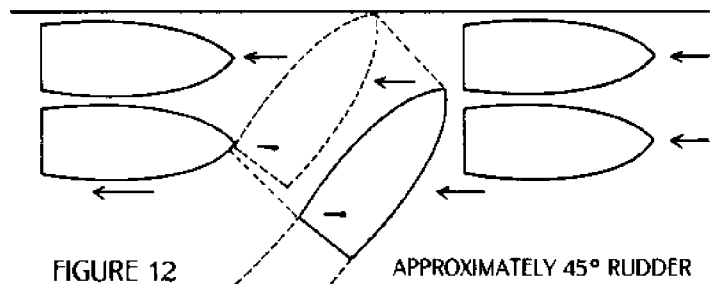


FIGURE 12

APPROXIMATELY 45° RUDDER

UNTYING AND MOVING AWAY FROM THE DOCK

Sometimes it is as difficult to get a boat away from the dock as to dock it. It is important to check the wind and tide *before* untying any lines. These forces can work for you or work against you.

SITUATION NO. 7 MOVING AWAY FROM THE DOCK

If there is no wind or current, first untie the spring lines, then the bow and stern lines. Never pull straight ahead to get away from the dock. You have no rudder control to get the bow out without hitting the dock with the stern. Instead, kick the stern out and back away from the dock to get maneuvering room (Figure 13). You may have to kick the stern out several times in order to get far enough away from the dock to go forward.

Be careful when backing full astern. There is a tremendous amount of pressure on the rudder. As a safety precaution, put a becket on a spoke of the steering wheel. Never let the wheel go when backing full astern. A spinning steering wheel can be disastrous.

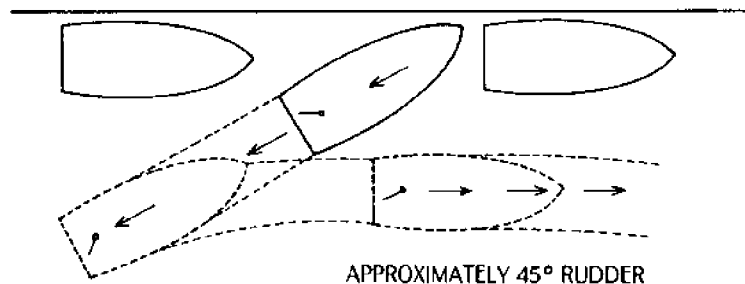


FIGURE 13

SITUATION NO. 8 MOVING AWAY FROM THE DOCK WITH CURRENT ON STERN, WIND BLOWING TOWARD THE SHORE, AND BOATS FORWARD AND AFT

First, untie the bow line. Move it down the dock toward the stern to the next available piling and tie it securely (Fig. 14). Next, untie both spring lines and then the stern line. Turn the rudder hard toward the dock,

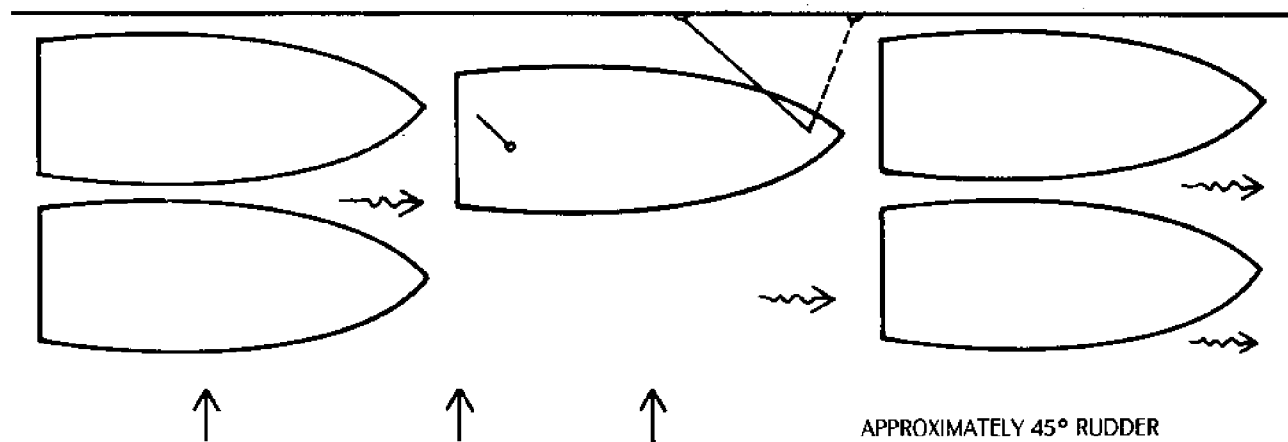


FIGURE 14

and ease the engine into slow forward. This will hold the bow tight (Figure 15). If the wind is too strong, slowly increase engine power to kick the stern out. Untie the bow line while reversing rudder. Now back down hard. Be sure that the rudder is all the way over hard or tied down with the becket *before* you back down.

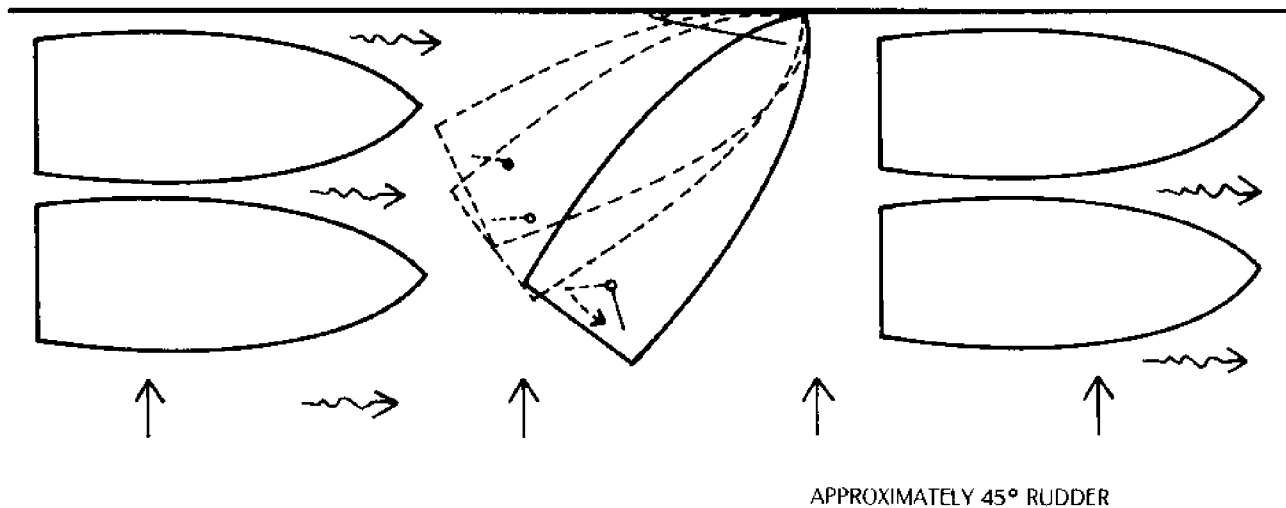
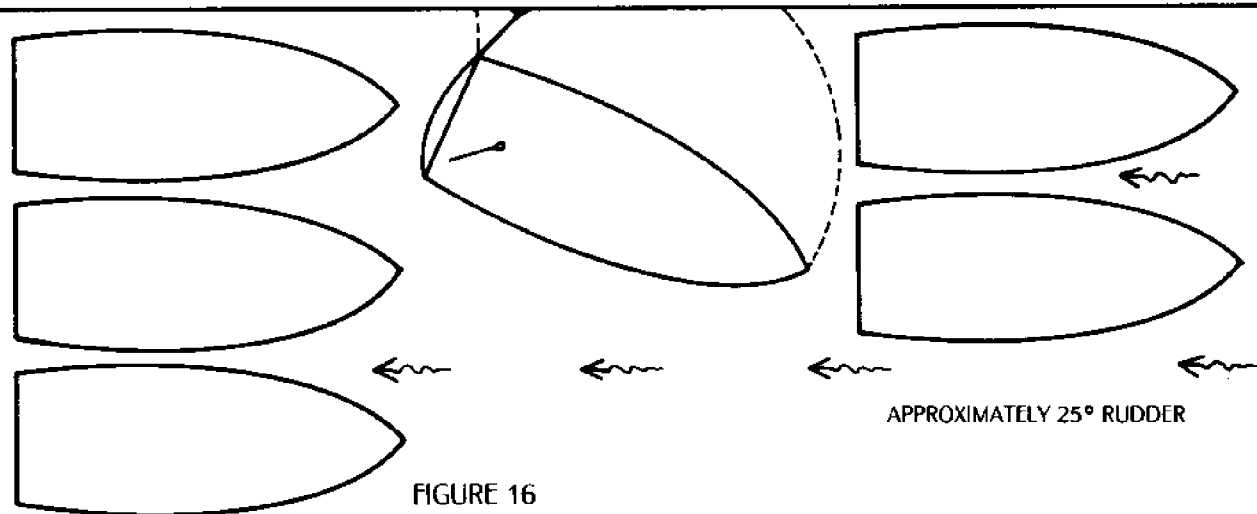


FIGURE 15

SITUATION NO. 9 MOVING AWAY FROM THE DOCK, CURRENT AGAINST THE BOW, WITH BOATS FORE AND AFT

The main point in this situation is to avoid having the current push your boat into the boats behind it. In order to do this, untie the stern line first and move it ahead to the next piling or cleat. Take the other end around the outside of the stern and tie it off to the stern cleat. Untie the spring lines and bow line last. By backing down slowly, the bow will move away from the dock (Figure 16). When the bow is out far enough for the current to catch it, take your engine out of gear. Release the stern line and then ease forward.



HELPFUL HINTS

1. Make all mooring lines ready before you arrive at the dock.
2. Be sure your crew knows which mooring line to use first.
3. Always use the outside stern cleat for final tie-up.
4. Be sure all mooring lines are long enough. Make spring lines approximately the length of the boat. Make bow and stern lines long enough to reach the dock over two boats.
5. Be sure the bow line is on the top part of the piling when leaving the dock. That insures the line can be flipped off easily if you do not have dockside assistance.
6. Anytime the wind is holding your boat to the dock, spring the stern out by using the bow line. It doesn't take long and will prevent damage to your boat.
7. When waiting for another boat to move before you can leave the dock, never, never untie the inside boat first. Boats can be easily damaged if the captain on the outside boat is not completely ready. Always be sure the outside boat is clear before the inside boat releases its lines.
8. Be sure that the crew knows how to tie lines to side cleats and bow bits (cleats) properly.
9. Be sure to check the positions of all nearby boats before leaving the dock.

GLOSSARY

- back down - stopping forward motion by reversing thrust - back up
- becket - a short line with one end fastened to deck or dash - used for holding steering wheel in any desired position
- berth - a place assigned to a vessel in port when anchored or lying alongside a dock or pier (also: slip, mooring, tie up)
- bit - a strong post of wood or metal on or through the deck - used for fastening or working rope
- bow/stern line - mooring line leading at an angle of about 45° with the fore and aft line of the vessel
- cleat - a horizontal piece of wood or metal used for fastening or working ropes
- kick in/kick out - a boat movement always done with forward thrust - rudder determines direction
- make fast - secure
- mooring line - tie up line
- spring line - mooring lines that allow a boat to rise and fall without moving ahead or astern or twisting into the dock

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layout, design and illustration by Charlotte Ingram

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