Docking
John C. Kelly, © 2003

Pointers for departure

1. Make a plan. Where is wind? Which lines are under strain? What is current?
2. Get stern away from dock by putting a fender forward and coming ahead on an after spring line.
3. With stern out you can back away.

Some things to avoid

1. Line handlers not knowing the plan.
2. Loosing lines in the water.
3. Fowling the prop with lines.
4. Not accounting for prop walk.
5. Approaching at too large or small an angle.
6. Letting wind catching either bow or stern with an offshore wind.
7. Making headway against dock.
8. Not getting close enough with offshore wind.
9. Approaching to fast with a stern wind.
10. Securing lines before boat is stopped causing nasty pivots.
11. Approaching with an offshore wind aft of beam when you could have turned around.

Approach rules based on wind direction

Wind	**Angle**	**1st, 2nd Line**
On Bow	15-25º	A-spring, bow
On Stern	Parallel	Stern, a-spring
Offshore f-beam	20-40º	A-spring, stern
Offshore a-beam	20-40º	Back on bow line
Onshore	5-10º	A-spring, stern

General Approach Rules

1. Assess wind and current. If necessary stop in channel and observe results.
2. Make a plan and review all positions and tasks in **DETAIL**! Is help available on dock? How will your plan be affected? Always send loop ashore so you can control line length.
3. Approach upwind or current if possible (helps to stop boat) at 15-25º relative to dock. Current usually takes precedence over wind. Attempt to approach with low throttle rather than idle. Watch for unintended prop walk.
4. If RHP, approach on port side so that when you reverse, stern will swing toward dock when you stop the boat. Avoid starboard side to with RHP.
5. Do not secure lines until boat is stopped. Stop boat with throttle, not spring lines.
6. If upwind, put after midship spring line on first. If downwind, put stern line on first.
7. Do not secure fenders until boat is stopped.
8. Assuming a port docking, bring the boat close to the dock by turning to starboard, and attempting to move forward on an after spring line. Stern will swing into dock and boat will be held tightly against the dock. Especially useful in an offshore wind.
9. Determine tidal height ranges and set lines appropriately. Longer lines for higher tides.

Terminology

Line Names

Bow line – runs forward from the bow to the dock.
Stern line – runs back from the furthest stern cleat back from the boat. Bow and stern lines prevent reverse and forward motion.
Breast lines (bow and stern) – run perpendicular from the boat to the dock. Prevents sideways motion.
Spring lines – are named for the direction they go once they leave the boat. **After spring lines** go from the bow or midship back. **Forward spring lines** go from the stern or midship forward. Prevents forward and reverse motion; essential in tidal situations.

Making Way

Headway – movement in forward direction.
Sternway – movement in reverse direction.
Steerage - there must be water moving over the rudder to have steerage.

Commands

Slack – feed out line
Ease – feed out line, keeping tension
Hold – keep turns on winch and maintain tension
Secure – cleat line permanently
Standby lines – prepare to get underway
Cast off line – pass lines back to dock.
Retrieve lines – bring lines back on the boat

Prop walk - for a right-handed prop (**RHP**), the boat moves to starboard in forward, and to port in reverse. Best way to determine prop walk is to turn on engine and test it.
Dock Lines - usually nylon because it stretches. Line size should match boat so it will stretch but not break.
Getting lines on pile or cleat – a dockhand may not be available or can be a problem because they don't know your plan. Two solo techniques: (1) make a large bowline and place one end of loop on boot hook and hold other end of loop in hand. This allows you to loop object without throwing the line. (2) Hold coil of line in each hand while also holding ends. Throw both coils over object continuing to hold ends of line. Secure line to boat for safety.
Fenders – do not secure fender until boat is stopped and do not drag fenders along pier or the lifelines and stanchions could be damaged.
Boat Hook – can be used to retrieve lines from piles and cleats. Can also help place lines on piles.
Keeping Control on the Boat – double the lines with a big bight around the clear or pile, or use a big bowline so that the knot can be reached from the boat. Remember you plan can be significantly affected by what is done by a person on the dock.
Problem with jumping onto dock – you may fall in, of, if there is a problem, you could be stranded on the dock.
Shifting – always pause in neutral when changing from forward to reverse.