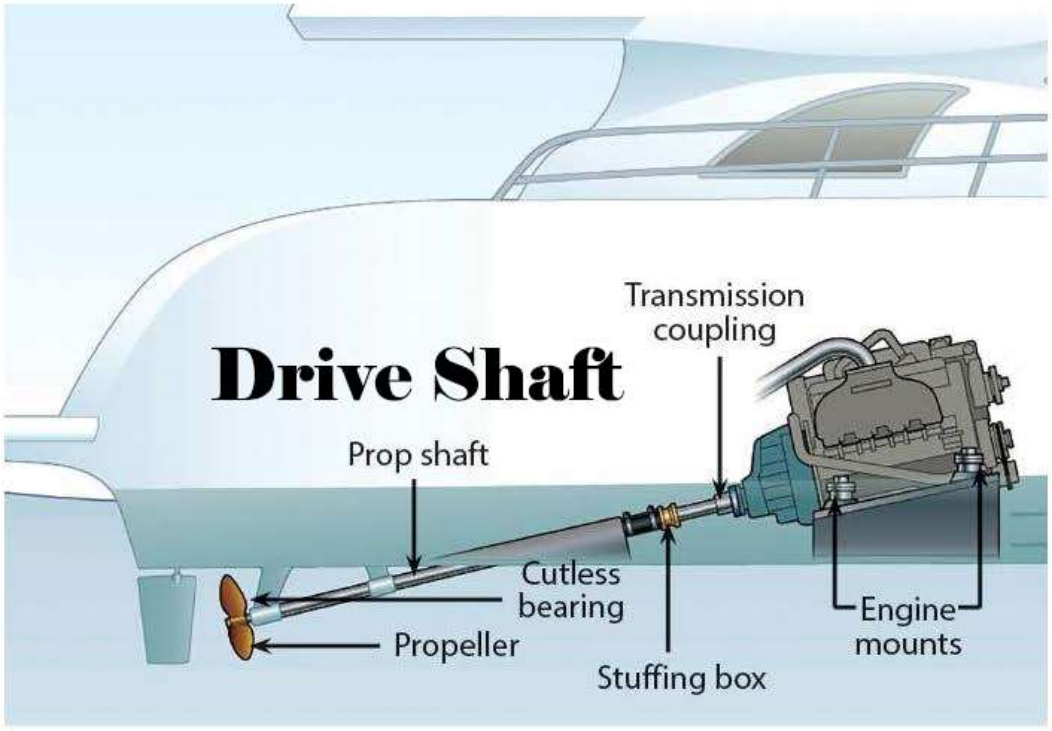
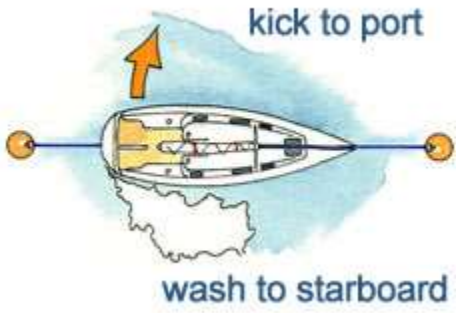
Big Boat Motoring

Engine Drive Types

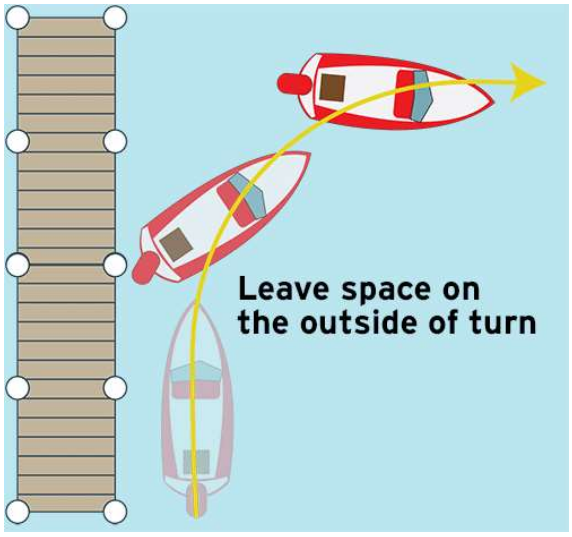


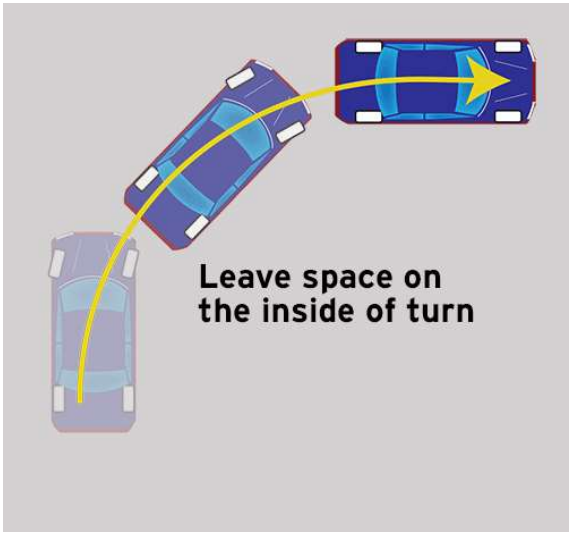
Saildrive

- **Forces that turn a boat**
  - **Wind**
  - **Current**
  - **Rudder – only when water is passing over it**
  - **Prop wash - (transmission in forward) propeller forces water over rudder. Dual rudders have little prop wash due to propeller wash not flowing over rudders directly.**
  - **Prop walk - (transmission in reverse) propeller torque causes stern to walk to port (right hand prop)**

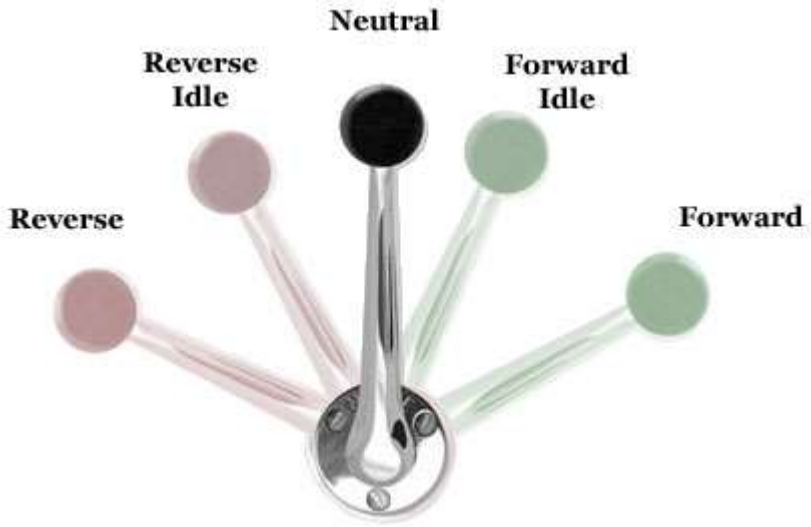


- **Pivot Points**
  - **A boat does not steer like a car but pivots on its axis.**
  - **Moving forward the pivot point is 1/3 from bow.**
  - **Moving backward the pivot point is 1/3 from the stern**

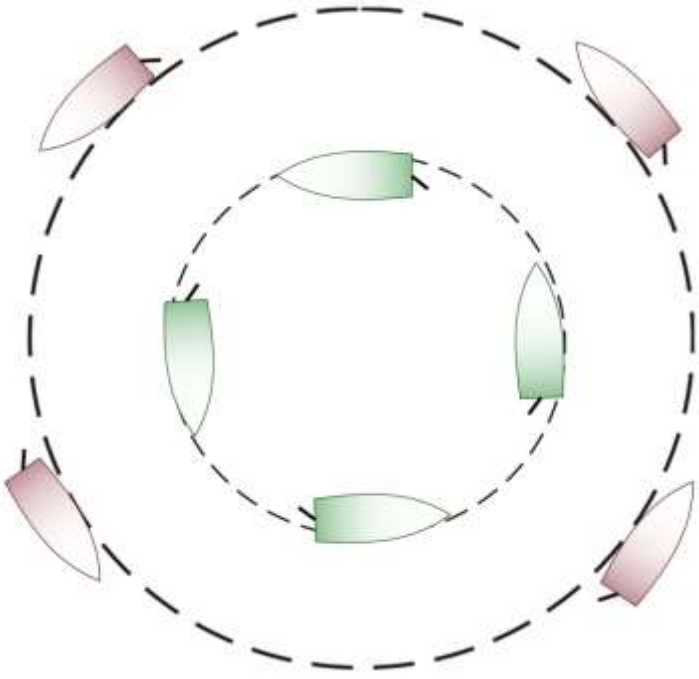




- **Throttle positions**
  - **reverse, reverse idle, Neutral, forward idle, forward**



- **Use bursts (neutral to max forward for ~3 seconds back to neutral) of prop wash to decrease turning radius**
  - **Helm hard over**
  - **Red boat has constant throttle speed – large radius**
  - **Green boat bursts throttle – smaller radius**



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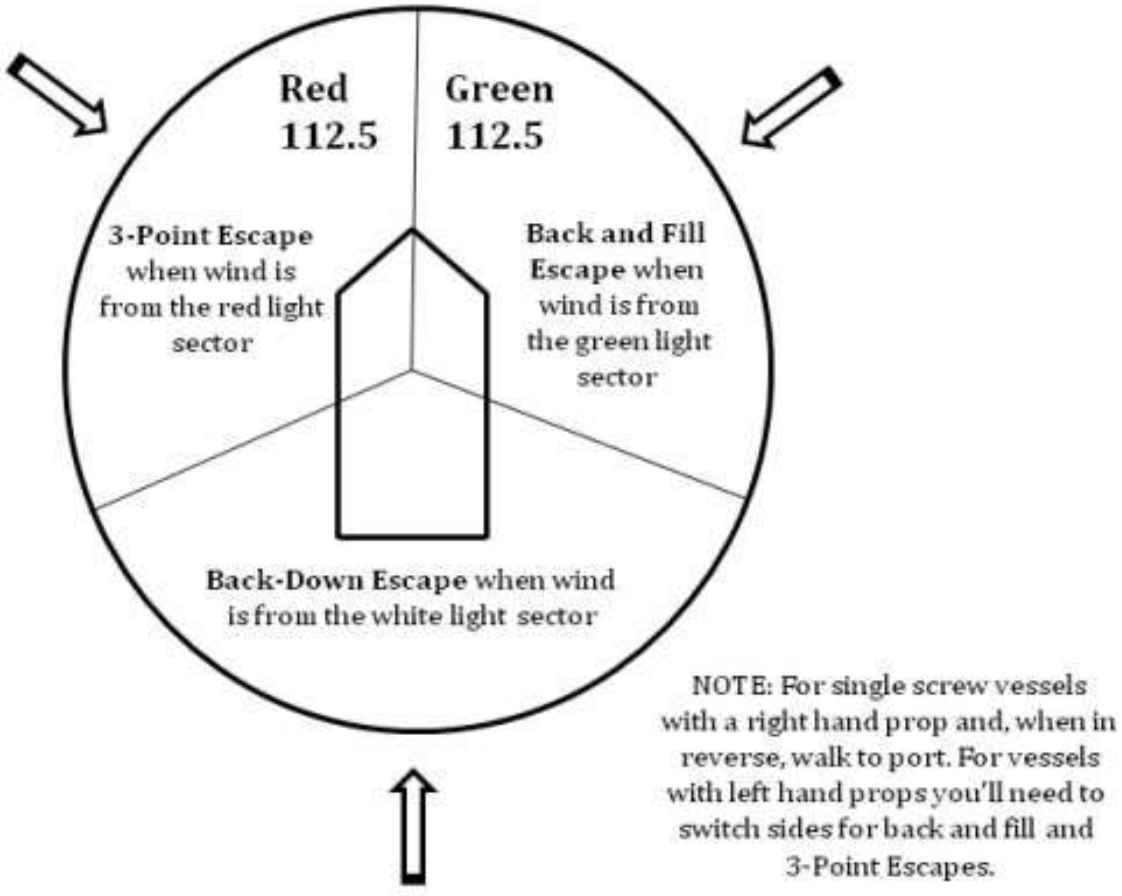
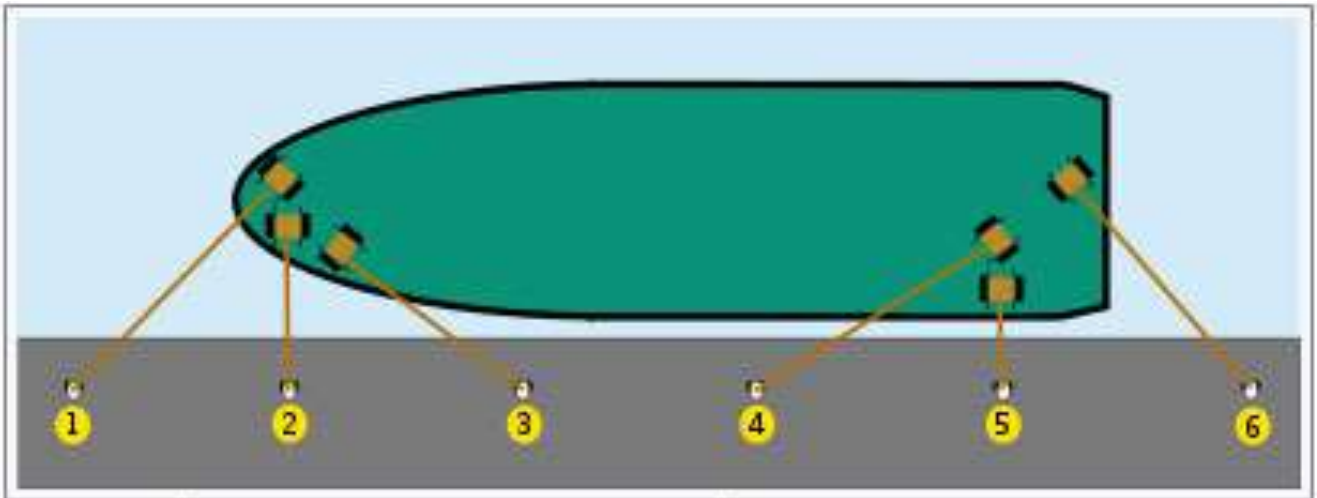
- **Three Escapes (right hand prop)**
    - **Back and fill – wind from starboard sector**
    - **Three point turn – wind from port sector**
    - **Back down – wind from astern**
        - **Slow boat by using reverse idle**
        - **Set boat up with 20-30 degree port offset**
        - **Center wheel, hold onto king spoke**
        - **Reverse quickly to obtain way and steerage**
        - **Don't fixate, alternate watching bow & stern**

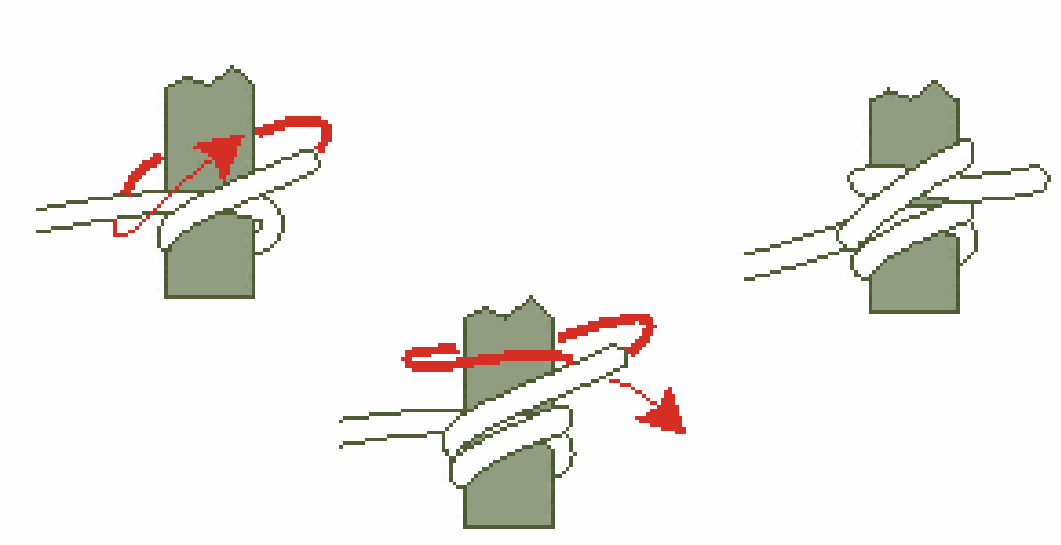


- **Spring Lines**
  - **Nomenclature – (direction/source FROM boat)**
    - **direction from boat - forward, aft (or after)**
    - **source from boat - bow, amidships (mid), quarter**

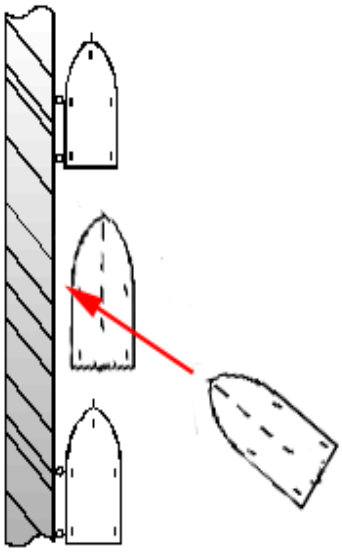


Number	Name	Purpose
1	Bow line	Prevent backwards movement
2	Forward Breast line	Keep close to pier
3	After Bow Spring line	Prevent from advancing
4	Forward Quarter Spring line	Prevent from moving back
5	Quarter Breast line	Keep close to pier
6	Stern line	Prevent forwards movement

- **Rolling hitch – good knot to combine dock lines to create a long adjustable length spring line**



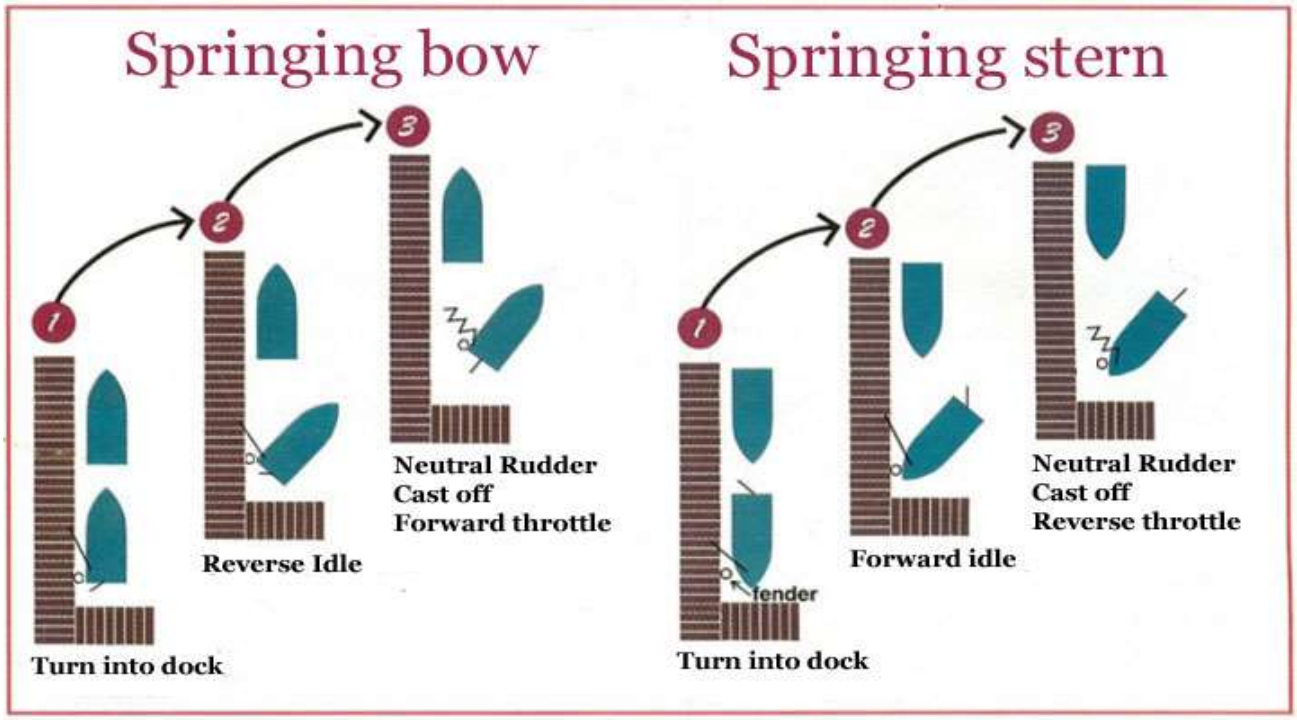
- **Side Tie**
  - **Arriving**
    - **Aim bow at dock location where you want the boats beam to come to rest**



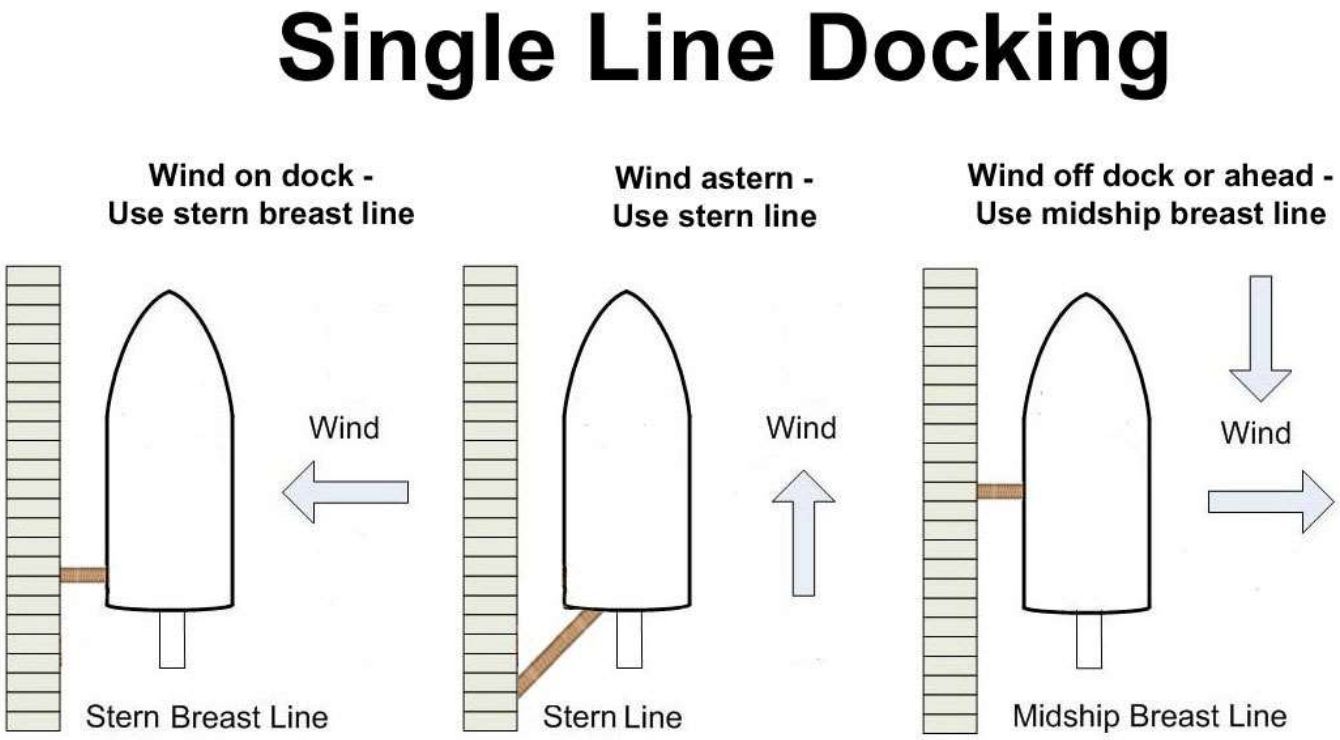
- **Springing Off A Dock**

    - **Spring bow away from dock**
        - **use forward quarter spring line**
        - **use fender(s) between dock and boats stern hull**
        - **turn helm to dock, reverse idle, cast off bow line**
        - **when clear, release spring line, forward throttle**

    - **Spring stern away from dock**
        - **use aft (or after) bow spring line**
        - **use fender(s) between dock and boats bow hull**
        - **turn helm to dock, forward idle, cast off stern line**
        - **when clear, release spring line, reverse throttle**

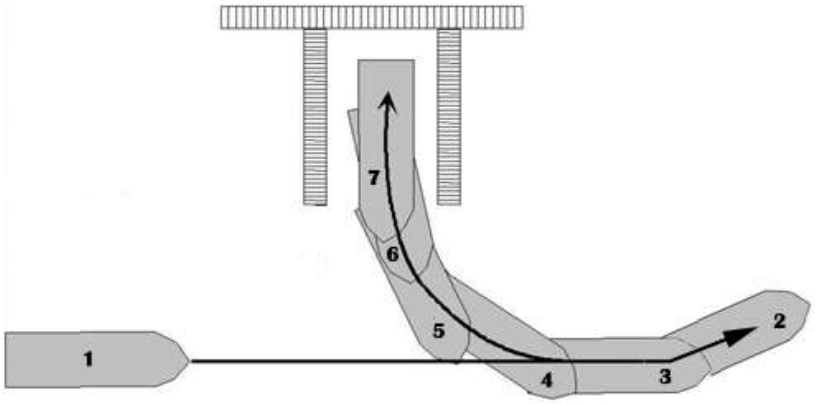


- **Single Line Docking**
    - **Use forward throttle (if needed) to keep boat against dock.**

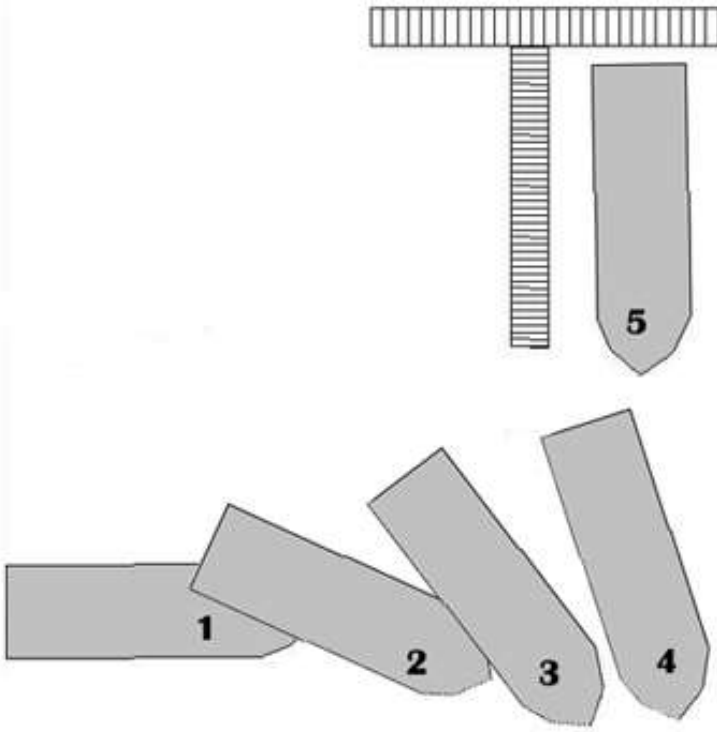


- **Backing Into A Slip (stern to)**

1. **Pivot method (utilize port prop walk (right hand prop) if needed)**
   a. **Offset bow 20-30 degrees to port before reversing**



2. **Back and fill (slide) method**
   - **works best with wind directly astern**
   - **don't let the boats bow pass center line of the slip**



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