Anchoring Techniques

1. Anchoring Equipment

1. **Type of Anchor**: Pivoting Fluke (Danforth, Fortress), Rollbar (Rocna), Plow (CQR, Delta), Claw (Ray, Bruce).
2. **Size of Anchor**: Holding power: determined by weight, design and surface area of blades and flukes.
3. **Anchor Rode**: **Chain:** hot-dipped galvanized – Proof coil, BBB, high test & alloy chain. All chain 120'-250.'
   Line: 3 strand or multiplait. Combination: Chain 50' and Rode 120'-350'
4. **Connectors:** Shackle anchor to chain. Secure shackle pin with seizing wire.
5. **Anchor Windlass:** horizontal or vertical. Stainless is far better than aluminum. Requires annual maintenance.
6. **Bow Roller(s):** Two are better than one, & **Bow Cleats:** strong enough for cleating off an anchor snubber.
7. **Anchor Snubber:** 30' of line to transfer load from chain to bow cleat, bypassing the anchor windlass.
8. **Chafe Protection:** for nylon rode or snubber: fire hose or flexible reinforced vinyl water hose.
9. **Anchor Marker:** brightly colored float and light line.
10. **Anchor Rode Bag:** storage bag for anchor line.
11. **Tender:** may be required to set and/or retrieve second anchor.

2. Selecting and Anchorage

1. Consult **chart** and cruising guides for depth and seabed characteristics for obstructions and information.
2. Check **weather forecast.**
3. Choose a spot with good **depth, flat bottom,** minimum **swell and wind,** and sufficient **swinging room.**
4. Make a circuit of the anchorage checking how other boats are anchored and their swinging radius.
5. Avoid anchoring in rock, kelp, coral and eelgrass if possible.
6. Anchor **near similar boats to yours** and observe the unwritten code of conduct. Vessels already at anchor have priority.

3. How to Anchor

1. Slowly approach your anchoring spot steering **into the wind** while noting depth.
2. Bring the boat to a stop and **drop the anchor** to the sea floor.
3. **Back up slowly** while paying out the desired scope (generally 4 to 1 with all chain), keeping the bow into the wind.
4. Let boat settle into the wind, **set anchor snubber** or bridle, then slowly apply power in reverse at about 2/3 throttle for two minutes. Anchor should set and rode stretch out.
5. **Check you're not dragging** by aligning two objects, one behind the other, and feeling for vibration on the anchor rode. If anchor is dragging there will be vibration.
6. Place engine in neutral, **rig chafe gear**, turn off engine.

4. After Anchoring

1. **Navigator notes** time, depth and GPS position in log book, then plots anchorage positon on chart.
2. Plan and study escape route. Set waypoints for a safe night time exit. Set the radar's VRM's in shore to help determine if you are dragging.
3. If possible **dive the anchor** with a mask to visually check the set.
4. Establish **anchor watch standing procedures** in case conditions warrant it.
5. **At dusk** note all surrounding vessels, navigation lights and prominent features such as trees, structures, headlands and lights.
6. Rig night **anchor lights**. Two are better than one.

5. Six Anchoring Techniques: see other side

6. What to Do if You're Dragging

1. **If anchor starts to drag,** it is likely the bow will blow off and the vessel will assume a beam-to-wind and swell orientation. If this happens, IMMEDIATELY start the engine, turn on the nav lights and call for "ALL HANDS ON DECK!!!"
2. **Increase scope**. If this doesn't stop the dragging retrieve and reset the anchor.

7. Anchor Retrieval

1. **Motor** slowly towards the anchor and stow the snubber line.
2. **Keep the boat positioned over the anchor rode** as you winch in the rode. Don't place undue stress on the windlass.
3. Once the rode is hanging vertically over the bow the **anchor should disengage** from the seafloor. Let helm know – "anchor is free"
4. Bring the **anchor up entirely** to the bow roller and pin or secure it.

8. What Matters: Keeping it Simple

1. **Items we've never used:** swivel connecting anchor & chain, riding sail, tandem anchors or kellet.
2. **Key points:** arrive in good daylight, select anchoring spot carefully, let our substantial amount of scope, and be prepared to move to a safer anchorage if wind increases or changes direction or if an arriving vessel anchors close directly upwind of you.

Six Anchoring Techniques

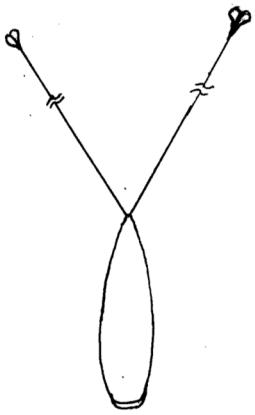
1. Single Bow Anchor

The most common technique.

Scope ratio for all chain

- Force 3 (10 knots) 3 to 1 scope: 150'of chain in 50' of depth.
- Force 4-6 (27 knots) 5 to 1 scope: 250' of chain in 50'depth.
- Above force 6 a second bow anchor greatly reduces your chances of dragging.
- Above force 7 (33 knots) 7 to 1 scope: 245' of chain n 35' of depth.

2 Two Bow Anchors

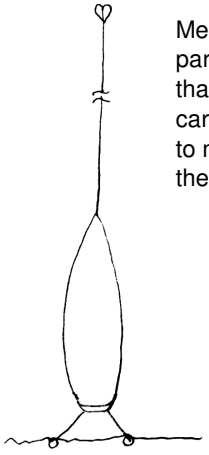


Two bow anchors are useful when:

- Winds above 25 knots are forecasted.
- Strong winds cause your boat to tack back and forth.
- Holding ground is poor.
- You want to go ashore and not worry about your boat.

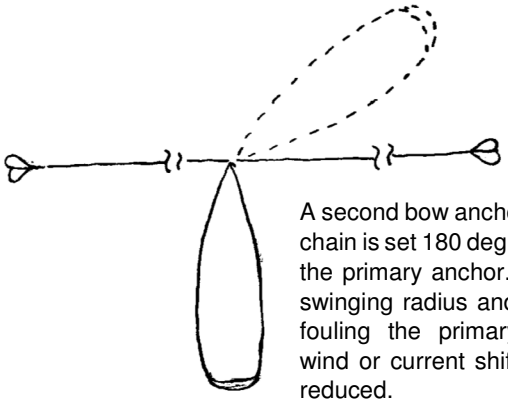
Set second anchor by powering forward at a 30 to 60-degree angle or by using the dinghy if seafloor has coral or rocks.

3. Mediterranean Style Mooring



Med-style mooring is common in many parts of the world, but is a technique that requires planning and practice to carry off smoothly. Many cruisers prefer to moor stern-to allowing them to utilize their primary all-chain rode.

4. Bahamian Mooring



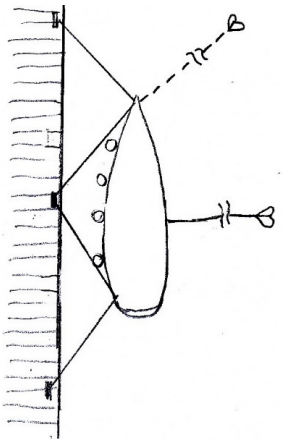
A second bow anchor on nylon & chain is set 180 degrees out from the primary anchor. The yacht's swinging radius and chances of fouling the primary anchor in wind or current shift are greatly reduced.

5. Bow and Stern Anchor

Useful when:

- Winds and sell are not form the same direction, e.g. Mexico, Hawaii or Marquesas
- Shallow water or numerous coral heads reduce swing room.
- Other boat in the anchorage are moored this way

6. Beam Anchor



Useful when moored to a rough wharf surface or if wind or current is pressing your vessel against the wharf.

Drop main anchor several boat lengths off the wharf at a 45 degree angle, reversing alongside or once moored set a beam anchor to the midship cleat using the dinghy.

Loosen dock lines and tension anchor rode to keep your boat off the wharf.