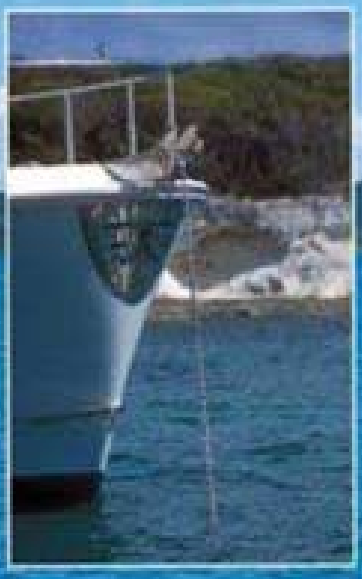
Captain's QUICK GUIDES

Anchoring

Peter Nielsen
Editor, *SAIL* Magazine



Waterproof

- Use the right anchor
- Select and size the appropriate chain and/or nylon rodes and connectors
- Learn the techniques and nuances for bombproof, hassle-free anchoring under power or sail

☐ Powerboats ☐ Sailboats ☑ Both

INTERNATIONAL MARINE

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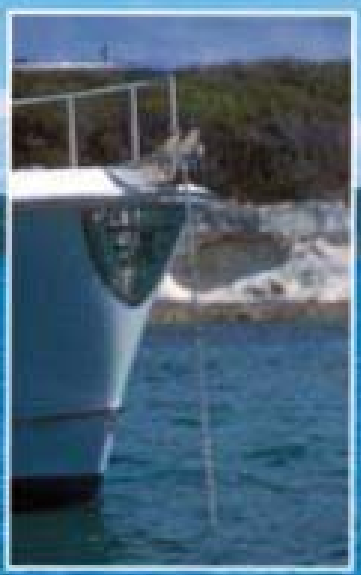

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Which Anchor?

Anchors come in great variety. The anchor you might use for a short, sheltered stop is not necessarily the one to use for anchoring overnight. Coastal cruising sailors and powerboaters should carry two anchors of different designs—a primary anchor that you trust to hold your boat in a boisterous anchorage, and a secondary to deploy as a backup when the primary won't do the job alone. Many boats carry a third, lighter anchor to use as a fair-weather "lunch hook" and for other occasional duties. Here's a quick rundown of types:

Plow Anchor and Scoop Anchor

COR

Holds best in: Firm sand, thick mud, rock, coral, weed

Not so good in: Silt, sloppy mud, gravel

Stowability: Usually stows well on a bow roller; hard to stow belowdecks

Comments: Excellent all-around anchor; the most common primary anchor on sailboats with bow rollers. Designed to bury deeply and provide high holding power in firm substrates. Tends to reset itself quickly when broken out or after a change in the direction of pull. Awkward to stow except on a bow roller, so not often found on small cruising sailboats or powerboats. Most will orient themselves point down when hauled up on a bow roller, making them self-stowing as well as self-launching. Scoop anchors differ from plows in their concave upper blade surface, which enhances their holding power. Popular examples are:

COR. Hinged-shank plow. One of the oldest anchors still in general use. Immensely popular. Beware poorly made copies. Best if heavier for a given size of boat than most other plows.

Delta. Fixed-shank plow. Valued by sailors and powerboaters for rapid setting, good holding power, and reasonable cost. Awkward to stow and won't fit some bow rollers.

HydroBubble. This plow has a plastic float to ensure that the blade meets the bottom at the desired angle. Sets quickly, holds well, and breaks down for storage, but creates an awkward fit in many bow rollers.

Spade. This scoop anchor has gained wide acceptance among cruising sailors in recent years. Concave blade and weighted tip provide excellent penetrating and holding power in most bottoms. Can be dismantled for storage.

Rocna and **Manson Supreme.** These new scoops have a roll bar rather than a weighted tip to orient the blade's sharp point into the seabed. Set quickly. Expensive and awkward to stow (except in a bow roller).

Claw Anchor

Bruce

Holds best in: Rock, weed, coral, sand

Not so good in: Soft mud, soft sand

Stowability: Awkward to stow except on bow roller

Comments: Like a plow, a good all-around choice as primary or secondary anchor on any boat over 30 to 35 feet. For best substrate penetration, heavier is better. Popular examples are:

Bruce. Rivals the COR among sailors' longtime favorites. Beware poorly made copies.

Pivoting-Fluke Anchor


Danforth

Holds best in: Sand, soft mud
Not so good in: Rock, grass, clay, weed
Stowability: Light and easy to stow on deck or in a locker
Comments: Features a pair of blades set at right angles to the shank and hinged to penetrate the bottom whichever way the anchor lands. Unexcelled holding-to-weight ratio once dug in, but can be slow to dig in or to reset after tripping. Sometimes prone to tripping lumps of weed or rocks between blade and shank, rendering it useless. Typically the primary anchor on a boat of less than 30 feet without bow-roller stowage. Ideal on larger boats for stern anchor, lunch hook, or kedging when aground. Can also serve as storm anchor, tandem anchor, or in other uses of a secondary anchor. Every boat should carry one. Popular examples include the West Marine Performance, plus:

Danforth. Like the CQR and Bruce, has spawned countless imitators. Provides excellent straight-line holding power. Often superior to plows in mud and sand.

Fortress. Lightweight aluminum. Consistently scores very highly for holding power in anchor tests. Breaks down for convenient storage.

Other Designs


Fisherman

The fisherman anchor is excellent for taking a quick hold in rocks and for penetrating thick weed but needs to be much heavier than an equivalent plow or Danforth. It is awkward to handle, needs to be dismantled for stowage, and can be broken out too easily if a bight of the rode wraps around the fluke or stock. Four-pronged grapnel anchors are good in rocky bottoms but are too inherently weak to be used as a main anchor.

If you're going to be anchoring a lot, it's a good idea to carry two anchors of different designs. Shown here (clockwise from top left): Delta, Spade, HydroBubble, Fortress (assembled and disassembled).


Delta


Spade


HydroBubble


Fortress (disassembled)


Fortress

What Size Anchor?

The loads on a boat and its *ground tackle* (the combination of anchor, rode, and chain) are ever-changing and dynamic. Wind and current make a boat sheer about at the end of its anchor rode. Waves make a boat's bow pitch up and down, jerking at the ground tackle. It is the ability of an anchor to withstand such jerking and snatching from varying directions, and to rebury swiftly should it be plucked from the bottom, that is critical.

According to anchor manufacturers' recommendations, the primary or secondary anchor for a 34-foot cruising sailboat could be a 22-pound Delta, a 35-pound CQR, a 33-pound steel Spade, a 15-pound aluminum Spade, a 10-pound Fortress, an 8.5-pound Danforth, or a 16-pound Bruce. Holding power is determined not by weight but by design and the surface area of the blade or flukes. For instance, Spade claims identical holding power for its steel and aluminum anchors, which have identical dimensions apart from weight. Weight, however, is certainly a factor in getting an anchor to dig in and set on a hard bottom, and unless an anchor digs in and sets quickly, its holding power is immaterial.

For decades, the anchoring maxim was "1 pound of anchor for every foot of boat." You could do worse than to follow that maxim today, at least for a plow or claw anchor.

Recommended Minimum Primary and Secondary Anchor Sizes for Sail or Power (pounds)

BOAT LENGTH (FT.)	DELTA	CQR	SPADE (STEEL/ ALUM.)	WEST MARINE PERFORMANCE	FORTRESS (ALUM.)	DANFORTH DEEPSET	BRUCE (CLAW)
20–25	14	25	22/10	6	4	5	11
25–30	22	25	33/15	14	7	8.5	11
30–35	22	35	33/15	14	10	8.5	16
35–40	35	35	44/20	25	15	13	22
40–45	44	45	44/20	40	15	20	33

Stern or **kedge** anchors are the exceptions to the pound-per-foot guidelines for anchor weight. You may have to row these out in a dinghy or carry them out by hand, so you want no more weight than necessary. A pivoting-fluke anchor on an all-nylon rode makes an ideal kedge.

A plow anchor (in this case a Rocna) setting itself in firm sand during beach testing.

Ground Tackle

The other elements of your ground tackle include the rode and connectors. The rode will be rope, chain, or a combination of the two.

Rope. There is only one rope material suitable for an anchor rode—nylon. No other fiber offers such a combination of strength and shock absorption. Traditionally, three-strand nylon has been the rope of choice, but the 8- to 12-strand single-braid nylon (also known as multiplait nylon) now marketed under such brand names as Mega Braid and Brait is an even better alternative, able to absorb more shock energy before failure and less prone to kinking and binding in chain pipes.

BENEFITS OF ROPE

- Elasticity lessens shock loads that can jerk an anchor out of the seabed
- Light and easy to stow
- Inexpensive and easy to replace

DRAWBACKS OF ROPE

- Need to guard against chafe
- Requires greater scope than chain
- Allows boat to sail around its anchor

Chain. For anchor rodes, most boaters use one of four kinds of open-link galvanized chain. *Proof coil* is made from low-grade carbon steel and is the most economical chain for anchor rodes. *BBB* has shorter links and is better than proof coil for windlasses. *High-test* or G40 has a higher strength-to-weight ratio and is made from high-tensile carbon steel. *Alloy chain* is made from steel alloy and is even stronger (and more expensive) than high-test.

BENEFITS OF CHAIN

- Cannot chafe through
- Great strength
- Extra weight on seabed absorbs shock loads and reduces need for long scope
- Boat does not sail around so much on anchor

DRAWBACKS OF CHAIN

- Extra weight can be hard to handle without a windlass and can affect boat trim
- Expensive
- Doesn't absorb shock loads in extreme conditions

By way of example, let's compare nylon and chain rodes for a 32- to 36-foot boat (see the table on Panel 5):

TYPE AND SIZE OF RODE	AVERAGE BREAKING STRENGTH (lbs.)	HORIZONTAL ENERGY ABSORPTION (ft.-lbs. per 100 ft.)	WEIGHT (lbs. per 100 ft.)
5/16" BBB chain	7,600	0	115
1/2" 3-strand nylon	5,750	67,665	6
1/2" nylon Brait	6,300	114,452	6

Rope or Chain—What's Best for You?

You often see offshore cruising sailboats and trawler yachts anchored on all-chain rodes, but most powerboaters and coastal cruisers use a combination of chain at the anchor end and nylon at the boat end. The chain augments the anchor weight and keeps the pull on the anchor as horizontal as possible. A commonly accepted ratio is 6 inches of chain for each foot of boat length, but a foot of chain for each foot of boat length is better, and a 50- or 60-foot chain allows a much shorter scope to be used than if the boat were anchored with mainly rope rode. Boaters in generally shallow waters (like the U.S. East Coast) can usually get away with using less chain (and even less rope) than those giving deeper waters (e.g., the West Coast or Great Lakes).

Recommended Rode Sizes

BOAT LOA (FT.)	NYLON RODE DIAMETER	CHAIN DIAMETER BY TYPE	WEIGHT (lbs. per 100 ft.) (NYLON/HI-TEN/ALL-CHAIN/ ALL-HT CHAIN)
Up to 25	3/8"/9mm	3/16" Proof Coil	3.5/50
27 to 31	7/16"/11mm	1/4" Proof Coil/BBB	5/76–81
32 to 36	1/2"/12mm	5/16" Proof Coil/BBB, 1/4"/HT	6.5/115–120/70
37 to 44	9/16"/14mm	3/8" Proof Coil/BBB, 5/16"HT	8.2/166–173/106
45 to 50	5/8"/16mm	3/8" Proof Coil/BBB/HT	10.5/166–173/154
51 to 62	3/4"/18mm	3/8" Proof Coil/BBB/HT	14.5/166–173/154

Connectors

Connect your chain to the anchor with a strong shackle (the working load should be stamped on it), preferably galvanized—stainless steel shackles are often weaker than galvanized ones. Making the shackle one size larger than the chain (e.g., 5/16" shackle for 1/4" chain) is a good precaution. Wire the shackle pin so that it can't unscrew itself ①. Do not use a carabiner-type quick link unless you have a small boat that doesn't put much load on its anchor. A stainless steel swivel between chain and anchor is a potential weak link, so if you feel you must use one (in an area of reversing currents, for example), make it top-quality. Always fit a shackle between swivel and anchor to ensure that it articulates properly.

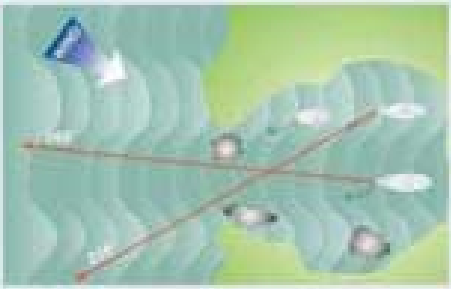
Lengths of chain can be connected with a joining link, but a single length is stronger. There are two equally strong ways to connect rope to chain: with a rope-to-chain splice ② or with an eye splice (around a thimble) and strong galvanized shackle ③. The former approach is mandatory if you have a windlass.

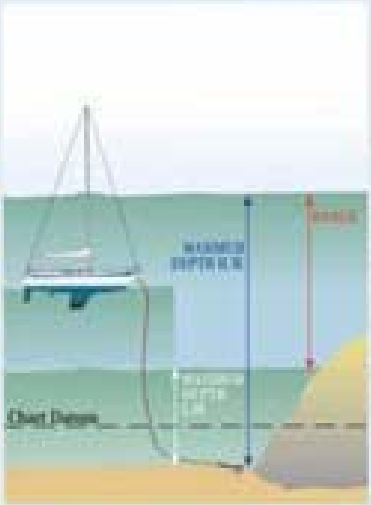
Choosing an Anchorage

If you will only be anchored for a couple of hours in settled weather, your biggest worries will be making sure you have enough water underneath you and that the anchor has dug in. But for a longer stay:

- Consult your chart to find out how much depth there is around the anchorage, and the makeup of the bottom. (*S* = sand; *M* = mud; *Cy* or *Cl* = clay; *Si* = silt; *St* = stones; *G* = gravel; *P* = pebbles; *Cb* = cobbles; *Sh* = shell; *Co* = coral; *S/M* = sand over mud; *Wd* = weed.) Avoid unmarked rocks or shoals and obstructions on the bottom that could foul your anchor.
- Check the weather forecast—will the anchorage provide shelter from the forecast wind direction?
- Look at how other boats are oriented. If their bows are not all pointing into the wind there is likely some current running, and this will influence your choice of where to anchor.
- Choose a spot that will have enough depth at low water—at least 6 feet under the keel. The less depth you anchor in, the smaller your swinging circle will be. If you know the local times and heights of low water and high water, you can estimate the height of tide when you anchor using the Rule of Twelfths. The rule assumes, given a 6-hour tidal range, that the tide rises or falls by one-twelfth of its overall range in the first hour, two-twelfths in the second, and so on, in this pattern: 1, 2, 3, 3, 2, 1.
- If possible, anchor on a flat bottom.
- Try to anchor where the effects of swell or wind are minimized.
- Make sure your boat can swing to its anchor without fouling other anchored boats, hitting obstructions, or grounding.
- Take compass bearings of safe routes out of the anchorage in case you have to leave at night.

These boats have taken clearing bearings on dangers at the entrance.



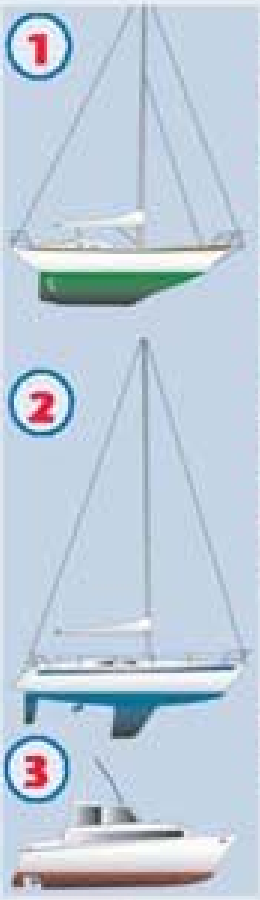


You need to know how much depth you'll have under your keel at low water. The depths marked on your chart and the heights of tide predicted in tide tables both relate to chart datum. If the height of tide at low water is predicted to be +1.0 foot, you can add 1 foot to the charted low-water depth. Allow for the range of tide when determining how much scope you need.

Anchoring Among Neighbors

Make a circuit of the anchorage to choose a good spot and check out depths and hidden dangers. Now take a close look at your neighbors. Different boats lie differently to their anchors. If possible, anchor next to boats that are similar to yours, and check whether they are anchored with chain or rope.

Observe the unwritten code of conduct. The first boat to arrive gets its choice of prime spots. The last to arrive is the first to move when boats swing too close. Also, don't drop your anchor over someone else's, don't anchor too close abeam of another boat, and respect your neighbors—don't play loud music or make unnecessary noise.



① A long-keeled, heavy-displacement sailboat will tend to lie quietly in most conditions, especially if anchored with all-chain rode.

② A sailboat with fin keel and spade rudder will tend to range from side to side at anchor.

③ A powerboat with little of its hull underwater will typically sail about all over the place when wind and tide are opposing each other, especially if it is on a rope rode.

④ Synchronized swinging circles, when all boats move together to the changing wind or tide, make for a peaceful anchorage.

Unfortunately, while boats will lie predictably when wind and current are in the same direction ⑤, they will be all over the place when the wind and current oppose each other ⑥.

In a river, try to anchor where the prevailing wind blows across the river ⑦. Otherwise you will spend much of your time in an undesirable wind-against-tide situation ⑧.

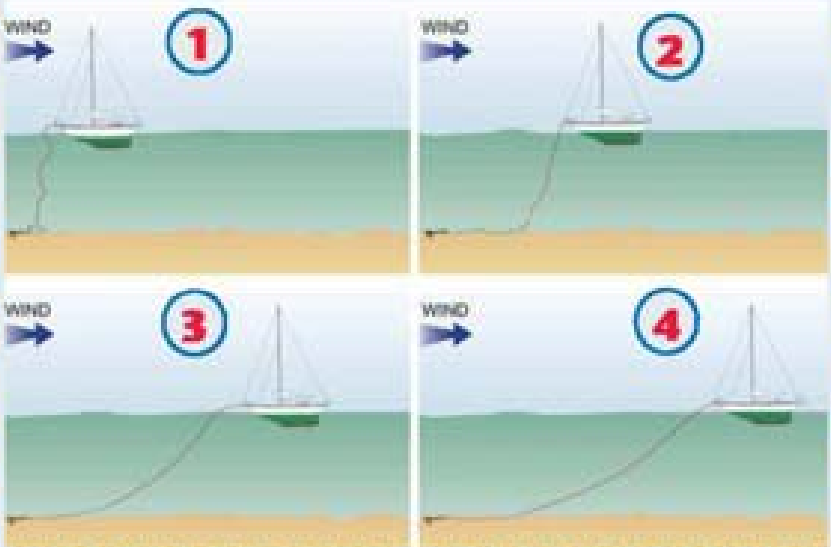
Anchoring Under Power

The procedure for setting an anchor under power is so simple that it is amazing so many people get it wrong so often. The same rules apply to power- or sailboats.

- Head into the wind or current, whichever is stronger.
- Bring the boat to a dead stop.
- As the boat begins to gather sternway, ease the anchor to the bottom either hand over hand or with the windlass. Do not just let the rode run out uncontrolled ①.
- Apply a touch of throttle in reverse to get the boat moving astern. If it is windy, this won't be necessary.
- Pay out the rode as the boat drifts back, keeping a slight tension on it so it forms a line across the seabed. The boat will probably lie broadside to the wind ②.
- When you have paid out about half your intended scope, snub the rode until you feel resistance from the anchor, then resume easing it out ③.
- Keeping tension on the rode, pay out another quarter of the scope, then snub again momentarily.
- With the boat still moving astern, secure the anchor rode when the desired scope has been paid out. The boat's weight should dig the anchor in solidly; the anchor rode will rise out of the water in a straight line ④.
- To make doubly sure the anchor is well dug in, back down with the engine at half throttle for 30 seconds. The boat should move forward on the rode when you ease the throttle.
- If you don't get your anchor to set the first time, try again. If it still won't set, try another spot.

Common mistakes: letting chain pile up on top of the anchor; letting the anchor go while the boat is still moving forward; going astern so quickly that the anchor does not have a chance to dig in; anchoring too close to other boats.

Most common mistake of all: failing to let out enough scope (see Panel 9).



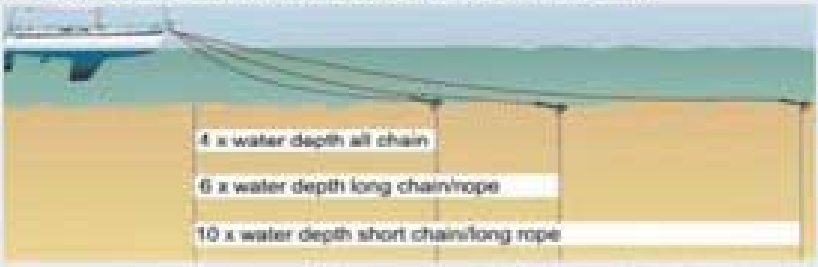
Anchoring Under Sail

Upwind: Roll up the headsail as you approach the chosen spot on a close or beam reach. Steer into the wind and let the mainsail luff until the boat stops. Drop the anchor as the boat begins to make sternway, and pay out the desired scope as in Panel 8. You can lower the mainsail as the boat falls back.

Downwind: Drop the main and play the lifesheet to spill wind and slow the boat as you approach the chosen spot. Roll up the jib completely as the anchor is let go. If you have a rope rode, be careful not to overrun it and get it tangled with your keel or rudder. As you snub the rode, put the helm over so that the boat swings around. The weight of the boat coming onto the rode should dig in the anchor.

Scope

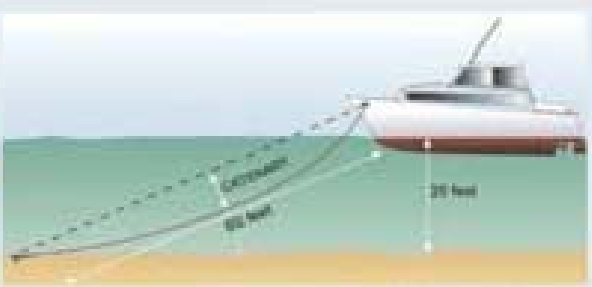
Scope is the ratio of rode length to water depth plus freeboard (i.e., the height of the bow above the water added to the depth of water). If you anchor at low tide, add the expected rise of tide.



For instance: 5' height of bow + 15' depth + 6' rise of tide = 26'. At the recommended 4:1 scope (all chain) you would let out 104' of rode; at 6:1 (chain/rope), 156'; and at 10:1 (all rope) a whopping 260'.

Adapt these rules of thumb to prevailing circumstances. In a crowded anchorage in settled conditions, you should get by with 3:1 scope on an all-chain rode or 4:1 or 5:1 on a rope/chain combo. Conversely, as the wind and seas increase, let out more rode to increase your scope.

Catenary—the sag in a chain rode caused by the weight of the chain—helps dampen loadings on the anchor and keep a horizontal pull on it.



Dragging Anchor

Sometimes the anchor won't set even after several attempts. You can either try a different anchor or move to a different spot. Even after you think the hook is set, it may drag when the wind increases or the tide changes and the anchor fails to reset.

How to Tell When You're Dragging

Immediately after anchoring, line up a couple of landmarks or seamarks on either side of the boat. Two objects in line with each other comprise a range: as long as the two objects stay aligned, one behind the other, you can be sure you are not dragging.

The pier and church steeple make a range to starboard. The rock and lighthouse make a range to port.

You are probably dragging if:

- The two objects in a range are no longer aligned
- Anchored boats appear to be overtaking you
- The rode rises up out of the water and then goes slack again
- The boat sheers to one side and does not swing back again
- The boat lies side-to the wind
- You can feel the rode vibrating beneath your hand or bare foot

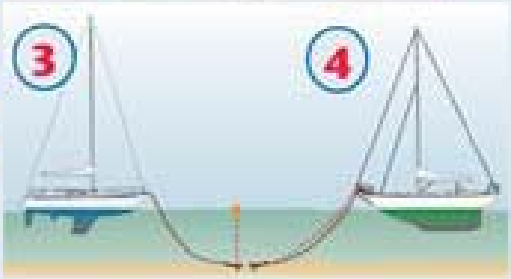
What to Do When You're Dragging

The first thing to try, if you are dragging into shallow water but are far enough from shore for safety, is to let out more rode (inadequate scope is the #1 reason anchors drag). Often this is all that's required. If you are among other boats, dragging into deep water, or too close to shore, get the anchor up immediately. If your anchor has pivoting flukes, make sure they have not been jammed by a pebble or starfish, and take special care when you try again to make the anchor dig in properly. If you still drag, your anchor may not like the bottom, so it is best to move to another part of the anchorage. On a windy night in an exposed anchorage, the crew may have to take turns keeping "anchor watch." Be careful when you're raising anchor with other boats close abeam. If it's windy the bow of your boat will fall off quickly when the load comes off the anchor, and you will have to use a lot of throttle to keep control.

Anchoring Tips and Tricks

Weight on rode. An excellent way to reduce your swinging circle in a constricted anchorage is to lower a weight down the rode ①. This can be a dedicated metal weight weighing a minimum of 20 pounds, shackled to the anchor rode, or you can use your kedge anchor. Rode weights also improve holding in strong winds.

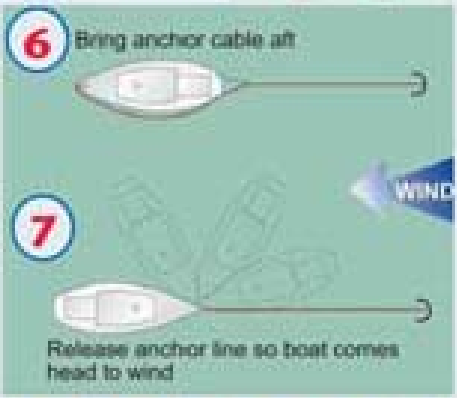
Riding sail. A riding sail, attached to the backstay and sheeted in tight, acts as a weather vane to keep the boat facing into the wind ②. It greatly decreases a boat's tendency to sail around its anchor. They are commercially available or you can make your own.



Anchor trip line. When anchoring over rocks or obstructions, you can attach a trip line to the crown of the anchor. If the flukes get stuck, the trip line should release them. The other end of the line goes to a small float ③ that should be clearly marked so that other boats don't mistake it for a mooring buoy. In a crowded anchorage, it makes sense to bring the trip line back on board your boat so that it doesn't foul other boats ④.

Multihull anchoring. Catamarans and trimarans tend to sail around their anchors more than monohulls. This tendency can be minimized by rigging an anchor bridle ⑤.

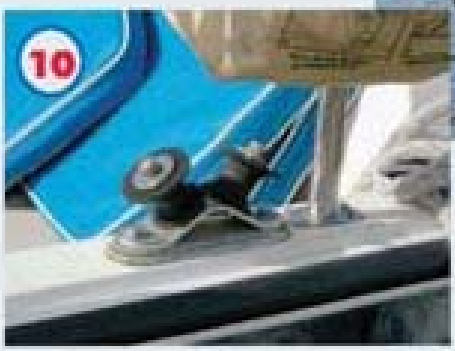
Anchoring from the stern. In calm, settled conditions, it is possible to anchor from the stern in order to get the breeze flowing through the cockpit and into the cabin. The best way to do this is to lead the main anchor rode back to the stern and cleat it there ⑥. When it is time to leave, or if the wind increases, uncleat the anchor rode so that the boat comes head to wind, then retrieve the anchor ⑦.



Anchor rollers. On small boats where weight distribution is important, it is often not feasible to keep an anchor on the bow, but if your boat is big enough and coastal cruising figures in your plans, a dedicated bow roller ⑧, ⑨ and anchor locker will be a blessing. Aftermarket anchor rollers are readily available, and fitting them is within the scope of a competent do-it-yourselfer.

Left: Double bow roller. Below: CQR stowed in bow roller, Danforth stowed in bow-pulpit bracket.

If your boating habits take you into waters where you will often need to set a stern anchor, you will also get good use out of a stern anchor roller ⑩, which can be bolted to the taffrail.

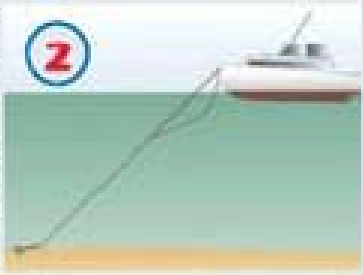


Chafe protection. Nylon rode has many virtues, but resistance to abrasion isn't one of them. A 1/2-inch anchor rode can chafe through in a matter of hours when the bow is pitching up and down in a rough anchorage. A length of fire hose (discards from the local fire station or commercial equivalent) is an excellent chafe preventer. Second best is a length of flexible vinyl water hose (used in plumbing). The only practical way to get these onto a nylon anchor rode is to split them lengthwise, and this means they'll work loose more easily. The best solution is to slide the fire hose or water hose over a snubbing line, which is then rolling-hitched to the anchor rode.

Marking your rode. How do you know how much rode you've got out unless you mark it? Commercially made rode markers are available from West Marine, or you can make your own. Plastic cable ties work well on either chain or nylon. They don't interfere with windlass operation and are available in different colors so you can come up with your own code. Leave the tails long; they can cut your fingers if trimmed too short, and they'll be easier to feel in the dark. Webbing markers are another alternative. There's no need to mark the rode more than every 25 or 30 feet.

A spring line on the anchor. Some anchorages are inherently rolly. Often the boat will ride more comfortably if you fasten a line from the stern quarter to the anchor rode with a shackle or rolling hitch, then ease the rode until the boat presents its bow to the swell rather than the wind ①.

Anchor snubber. If anchoring with all-chain rode, you should rig a nylon snubber line (sized like a nylon rode) from a sturdy deck cleat to the chain ②. Not only will this absorb the shock loads the chain would otherwise transmit to windlass or anchor cleat, it prevents the rumblings of the chain dragging across the bottom as the boat swings from being transmitted to the hull. The snubber should be about 30 feet long so that you can lengthen it as the wind increases. It can be fastened to the chain with a rolling hitch or with a chain claw.



Taking a line ashore. It is often possible to anchor in narrow coves with little swinging room by taking lines ashore ③. The boat should always face open water in case you have to leave in a hurry. Drop the anchor, back into the desired spot, then take lines ashore with a dinghy. This is a good technique to use where the bottom drops away steeply from the shore.

Keeping your rode in order. If you don't have a dedicated chain locker, the best way to keep your anchor rode ready to run is by faking it into a bucket ④. This will ensure that it will pay out without tangling or kinking. Tie the bitter end of the rode to the handle of the bucket, leaving enough free so that it can be cleated off before you drop the anchor.

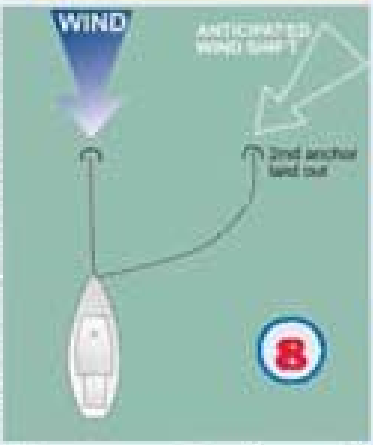
Setting two anchors. Sometimes it is a good idea to set two anchors. For example, you might want to limit your swinging circle so as to anchor closer to shore; you might be anchoring in a river or narrow cut where the current reverses; or you might want extra security because strong winds are forecast.

The most common way of doing this is to drop your main anchor first ⑤, then fall back until you have paid out double the desired scope. Release the stern anchor, then pull the boat for-

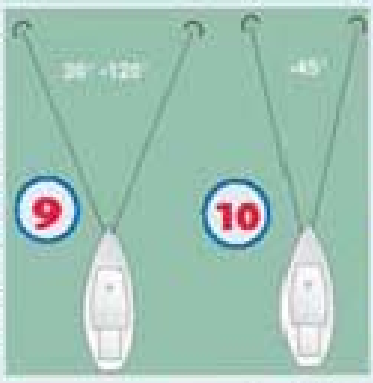
ward on its bow anchor rode until the scopes are equalized ❻. Remember that the heavier anchor is always set in the direction of the strongest current, which flows from unchannel if anchoring in a river. When it's time to leave, weigh the downstream anchor first: if the bow is facing downstream, take the stern anchor rode forward outside the lifelines and cleat it off at the bow. Then let the boat swing head to current before drooping back to retrieve the anchor.

The fore-and-aft moor works well most of the time in confined waters. When the wind is blowing from abeam, however, it puts a huge strain on the anchors and may well break out one of them. At such times you can set bow and stern anchors as above, then carry the stern anchor rode forward and secure it at the bow. This configuration is known as a **Bahamian moor**. The stern anchor rode may foul the keel when the boat swings unless you weight it or secure it to the main rode well below keel depth ❼.

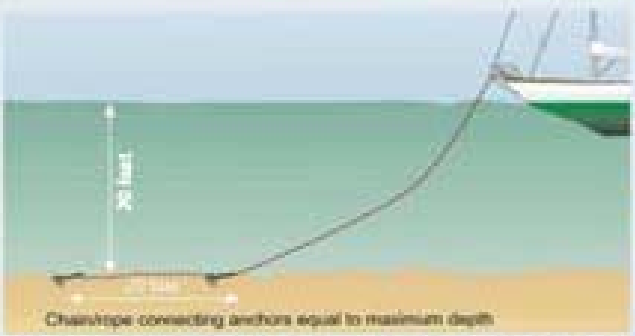
If you are in an exposed anchorage and a change in wind direction is forecast, you can lay out a second anchor from the bow in the direction of the anticipated wind shift ❽. This is best done with the dinghy. When the wind shift arrives, equalize the two rodes so that they share the strain.



Sometimes you might want to set two anchors from the bow to reduce your swinging circle. An angle of up to 120 degrees between them is fine in light to moderate winds ❾, but in strong winds the angle should not exceed 45 degrees, and 30 degrees is better ❿.



Finally, some long-distance sailors recommend setting **tandem anchors** in strong winds. The technique involves shackling a lighter anchor to the crown of the main anchor. Unless you do this with a length of chain at least equal to the depth at high water, you will find it very awkward to retrieve the second anchor. You need to get the main anchor on deck or in its roller before lifting the second one.



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