

The Right Anchor

by Capt. Gary P. Joyce

It looked to be a likely spot for fish to hang out, a shoal, a high-speed rip and the chart promised rocky bottom just inside the shoal. I drop the hook — a Danforth-style — and head aft to get ready to drop the other kind of hook, but ... hmmm. I don't think the anchor set. After taking a look at some reference points ashore, it appears that the anchor isn't grabbing. Maybe I need to let out some more scope. Wait a few beats and ... hmmm. That's not working either, and now I'm not exactly where I want to be. Okay, let's try this again.

I pull the anchor and wipe some eelgrass off the flukes, power back to where I wanted to be in the first place, throw the anchor out and let out a ton of scope. Still doesn't seem to be grabbing. Now what have I done wrong so far?

Well, I was okay when I first decided on anchoring up, but from there on things went down hill. First hint should have been the eelgrass. If you're pulling up grass, chances are the bottom style isn't exactly what a Danforth-type anchor was designed for. A Danforth holds best in sand or land-like mud; they will also hold in rock, but as any diver can tell you, they'll hold but won't necessarily release. But they're not designed to hold in slick underwater foliage of any kind. There's also the problem — not mentioned, but probably obvious to any boat owner — that I used the Danforth again, even though I *had* recognized the bottom material because you *know* I didn't have any other style anchor aboard.

Then there was the throwing the anchor bit, a sure sign of a landlubber. Heaving your anchor isn't helping anything and is simply a waste of energy and possibly dangerous as well. ("There's no way the line will get wrapped around my leg!" Well, duh, yes, there is.) Just drop the anchor overboard and leave the shot put muscles for when you're pulling it up or — should you have a larger boat — when your much abused and neglected windlass heads south, or start training for the shot put.

Anchors

Saying "anchor" is like saying "car;" both words describe something, but within are a spectrum of styles, manufacturers, intended usages and costs.

The most common anchor is the Danforth-style, named after its inventor, Richard Danforth. The anchor was invented in 1938 and used successfully during World War II as a means of kedging landing craft off the beach. It is considered a lightweight, burying anchor and is the most common anchor you'll see on boats. It comes in various sizes for various-sized boats and is made by several manufacturers under a variety of names; Danforth is a trade name. And speaking of kedging: a kedge is a type of anchor too. It's the one that looks like the kind Popeye has tattooed on his arm. "Kedging" means pulling your boat off a shoal by setting your anchor in deeper water.

A spin-off of the Danforth is the Fortress, which is an even lighter anchor with an adjustable shank. It has pretty much the same limitations as the Danforth in weeds and grassy bottoms; however, it is lighter.

Then there are plow anchors, which are actually a sort of subset, encompassing several brand-name styles of anchors, all working like the plow a farmer uses to till the field. There's the CQR, the first of the plow styles and invented in England; it is a one-piece plow-style anchor. There is the Bruce, which was designed in gargantuan proportions to hold North Sea oil rigs and which resets itself quickly, regardless of direction of pull; and others, notably the Max (an American-designed version of the Bruce) and the Delta (a similar design to the CQR, said to have somewhat better holding power).

Regardless, the plow-style anchors work by settling on their side when dropped, then rotating upright and biting with the "plow blade," working themselves deeper as they are tensioned. It works in the most variety of bottoms, but like the Danforth, shows a propensity to not bite very well in weeded areas.

The only style that *does* work well in weeds is the aforementioned kedge anchor. Since very few of us are sailing galleons these days, storing a kedge would be a problem were it not for a modern twist to the design. The stock — the

Continued on page 21

S&S MARINE AFFILIATES, INC.

Established 1953

Located on the famous Nautical Mile in Freeport

INSURANCE QUOTES



on all vessels with no obligation!

Frank T. Abbey // Certified Marine Surveyor
Member ACMS: ABYC & Boat US Tech. Exchange

Survey On All
Types of Vessels



Call For Prompt and Efficient Service

102 Woodcleft Ave., Freeport, NY

516-378-2008

Fax: 516-378-2476

or e-mail: SSMarine@aol.com

Popeye says
Be A Hero! Around water,
keep kids in life jackets.



The US Power Squadrons,
Popeye & Olive Oyl
remind you to be a Hero!
Around water, keep kids in life jackets.

For information on US Power Squadron boating courses or membership, please call 1-888-FOR-USPS or visit www.usps.org

The Right Anchor

by Capt. Gary P. Joyce

Continued on page 20

upper crossbar of the anchor - is removable and locked in place with a "key."

Are you going to carry two or three different anchors? If you're world cruising, you will. If you're like most of us and just puttering around the bays and inshore waters, you probably won't. Should you carry more than one anchor? Yes. Just like your boat should have twin batteries, twin engines, and a compass and chart backing up your electronics.

you've let out, it probably wasn't enough to leave the boat un-crewed to go for a swim to that beachfront burger shack.

Scope is the ratio of the height from where the anchor is tied above the water line plus the depth of the water to the length of anchor line required for the anchor to dig in properly. If you're going to be munching burgers at the aforementioned beach bar for any length of time, you've also got to take into account tide; if it's flooding, the water depth is getting deeper.

A general recommendation for



Ground Tackle has Nothing to do with Electricity

Ground tackle is all the stuff attaching your boat to your anchor; it includes chain, the shackles attaching the chain to anchor, and the anchor line. Some maintenance tips include: cleaning your anchor line of grit and sand periodically; checking all shackles and ensuring shackle pins are wired to the shackles (stainless steel, copper or nylon electrical ties all work); swapping rope ends about midway through the season if you're anchoring up regularly; checking the splice on the eye where rode and chain are connected ... the only place there should be a splice in your anchor line; and lastly, making sure the bitter end (that's a seafaring term for the end of the rope that belongs aboard) is connected to the boat ... just in case.

Scope Isn't just a Mouthwash

Here's a simple rule of thumb: no matter how much anchor line

the minimum scope required of chain (recommended to be approximately a half foot for every foot of boat length) and rope is 4:1, this assuming you've dropped the hook and remain aboard. Depending on conditions, anywhere between 4:1 and 7:1 is reliable. In storm situations the scope should run at least 10:1 and you ought to double up anchors as well.

Now let's figure this out. You're anchoring in 10 feet of water and your anchor cleat or windlass is three feet above the waterline, ergo 13 feet times 6 (for a 6:1 ratio) equals 78 feet of rode and line out. Add, say, a three-foot tide difference, making it 16 feet, and you've got 96 feet. Now you know why your 20-footer should have 100 feet of anchor line aboard, and you know why bigger boats have anchor lockers in which you can sleep.

Do the math and keep your boat where you want it to be because it can be a loooong swim home

MERCURY
5 & DRIVE
SALES EVENT

BUY NOW AND GET UP TO A
5 YEAR FREE WARRANTY

A VALUE OF UP TO
\$2420
ON SELECT MODELS

VERADO 135-300 HP
OptiMax 75-250 HP
MERCURY FourStroke 25-115 HP

NOW EVEN OUR WARRANTY IS MORE POWERFUL.

**Now through
April 30, 2010!**

**Purchase any qualifying Mercury®
outboard between January 1
and April 30, 2010 and
receive up to five years of
factory-backed protection free!!**

**Call Your Local Dealer
For Details!**

<p>Albertson Marine - Certified Verado Installer Main Road, Southold, NY 11971 631-765-3232 www.albertsonmarine.com</p>	
<p>Burnett Marine Service Mercury Platinum Dealer Certified Verado Installer 34 Homan Ave Bay Shore, NY 11706 631-665-0293 www.burnettmarineservice.com</p>	<p>Bridge Marina 40 Ludlam Ave Bayville, NY 11709 516-628-8686 www.bridgemarinesales.com</p>
<p>Ocean Outboard Certified Verado Installer 351 South Main Street Freeport, NY 11520 516-378-8700 www.oceanoutboard.com.com</p>	<p>Precision Marine 2936 Arrowhead Place Seaford, NY 11783 516-785-3013</p>
<p>RPM Marine 711 Montauk Hwy. Lindenhurst, NY 11757 631-957-1901 www.RPMmarineinc.com</p>	<p>Remsenburg Marine Mercury Platinum Dealer Certified Verado Installer 42 Dock Road Remsenburg, NY 11960 631-325-1677</p>