

Selecting an anchor that's right for you

One of the most important pieces of equipment onboard your boat is your anchor.

A decent anchor allows you to safely visit remote and wonderful places and can be the difference between surviving an extreme weather event such as a hurricane – or not. Even the casual boater will enjoy huge benefits by choosing a competent anchor.

Which anchor?

Which anchor you choose depends on the vessel you own and where you operate it.

The type of bottom will determine the best anchor to use in any situation, along with the size and windage of the boat. No one anchor is suitable for all anchoring duties, but these days there are 'new generation' anchors available that hold well in a wide variety of bottom types.

Anchors can be divided into specialist and general-purpose types. For most anchoring duties, boaters choose general-purpose types, which are unsuitable for use in rocky areas. If you anchor over rock or reef, you will need a specialist rock anchor such as a grapnel, usually carried as a second anchor.

The majority of boaters still carry the older-style general-purpose anchors, such as ploughs (e.g. CQR), claws (e.g. Bruce), and flat-blade Danforth types, which have served boaters for generations. In some cases it's the only anchor carried aboard the vessel.

Developed in 1933 the CQR anchor is still extremely popular although 'new generation anchors' offer significantly improved performance



But in many respects, these older types do not offer the benefits of the newer generation of anchors, which afford improved anchoring performance under most conditions.

Inherent problems with the older anchor types include inconsistent setting performance (often not setting at all), poor holding in soft bottoms, and failure to penetrate hard seabed substrates. There are type-specific issues also, such as moving parts (e.g. hinged-shank ploughs), which can cause injury to crew, as well as reducing anchor strength; blade shapes designed to furrow (i.e. plough) through the ground, rather than holding fast; and the 'hopping and skipping' behaviour of claws, together with their poor reset ability.

'New generation' anchors have addressed many of these issues, particularly with regard to setting and holding in a variety of bottom types. Examples of new generation anchors include 'Spade', Bügel' and 'Rocna' anchors, among others.

These are single-point anchors with either scooped or else angled, triangular blades. Some feature rollover bars to ensure they roll the right way up on the sea floor and set correctly every time. Such anchors generally re-set easily if dislodged by changes in wind and current and hold more effectively in sand, mud and grass.

Size and holding power

While holding power may have little relation to an anchor's weight, in general, increased anchor size/weight means increased holding power. In fact, many traditional anchors rely on their weight as much as their design for holding power. In contrast, new generation anchors rely on a combination of blade design and surface area, shaft angle and anchor rode length/angle for their holding power, which can be more than 200 times the anchor's weight.

In the case of an anchor like the Rocna, weight has little bearing on performance – the Rocna relies on the design of its point, blade and shaft for its ability to bite into and hold in a wide variety of bottom types. Along with a select few other new generation anchors, the Rocna outperforms traditional anchor types in independent testing, even when the anchor used is smaller than would be usual with an old-style CQR or plough. It is particularly good at setting first time, resetting if dislodged – usually within a metre – as well as offering unmatched holding in a variety of bottom types.

While new generation anchors may be rewriting the size-weight equation, it is still sensible to choose a larger rather than a smaller anchor where possible.

It is also prudent to have at least two anchors onboard – most boats will have a smaller kedge or stern anchor, but spares are important too. Serious cruising boats will have a small collection of anchors, stowed below if not in use.



The New Zealand Rocna is an example of a new generation anchor

Structural strength

Structural strength is important, considering the extreme loads imposed on an anchor. Most anchors are built from galvanized steel, but stainless and aluminium options are sometimes available. Aluminium is lighter, making it ideal as an auxiliary anchor, but sometimes affecting its ability to set; stainless steel costs more and is slightly less strong than mild steel, but is also longer lasting and smarter looking.

If an anchor is also used over a rocky/coral bottom, it needs to withstand high point loads – a cheap or poorly made anchor will fail.

Keep away from cheap anchors and beware of ‘knock-offs’ – they usually take shortcuts in design or manufacture. The genuine article is always best.

The ideal anchor

- Quick to set, and reset if dislodged
- Good holding in all bottom types: sand, mud, rock/coral and (sea)grass
- Good holding power, even at short scope
- Strong. It should handle high loads on every part of its structure
- Easy to weight/release from bottom
- Compact to store, on deck or in a locker, or else securely stowed on a bowsprit/bow roller

While no single anchor possesses all of the ideal attributes above, it should be possible to select one with a good balance to suit the conditions you expect to encounter.