

## About Your Rocna and Its Features

The Rocna is a new generation marine anchor developed in New Zealand. Best described as a fast set ultra high hold design, a genuine Rocna is one of the world's best anchoring solutions that you can add to your vessel.

The Rocna was designed to address the limitations shared by all older and most newer anchors available. These designs suffer from varying combinations of the following issues:

- limited resistance and holding power due to small blade areas (inefficient distribution of weight)
- blade shapes designed to furrow or plow, i.e. move through the substrate
- poor penetration abilities on difficult seabeds such as weed, kelp, and grass
- a tendency to roll-out under heavy or veering loads rather than remain embedded even if being dragged
- impractical designs that do not consider stowage on your boat's bow, resulting in slack fits that allow movement at sea which can be damaging as well as annoying
- insufficient strength in the shank or other load-bearing components
- moving parts that eventually wear, can be a hazard to personnel, and introduce a reduction in strength

The Rocna successfully addresses each and every one of these points, amongst others, while retaining a philosophy of strength, durability, simplicity, and clarity of design.

Furthermore it is a general purpose design that will work on all seabeds. There used to be a time when a boater needed to carry multiple anchors, each a specialist design for a particular bottom type, such as hard sand, soft mud, weed, grass, and rock. While we do not recommend relying on only one anchor - it is wise to have spares and auxillaries - there is now no need to carry such redundant weight.

### about the roll-bar

There are several anchor designs that use a roll-bar. Apart from the German designed Bügel, few of these designs use a roll-bar for the same purpose, and they should not be confused with the Rocna. The presence of a hoop does not mean the same concepts are in use.

The roll-bar on the Rocna serves one main purpose: it ensures the anchor will adopt the correct setting attitude, which is loosely described as being on its side with the complete anchor weight supported between the **skids**, the end of the **shank**, and the chisel-tip of the **fluke**. In addition to ensuring the Rocna will always achieve the correct orientation, the roll-bar means the tip does not need to be weighted with dedicated lead. This in turn permits a much larger blade area and generally more optimal weight distribution, and the lack of lead is environmentally friendly.

The roll-bar serves a secondary purpose of reinforcing the heel of the fluke. Combined with the concave shape of the blade, this makes the anchor massively strong. It may also be used as a carry-point to assist handling, et cetera.

### penetrating the seabed surface

Once in the correct setting orientation or attitude, the pull of your boat on the anchor rode creates a turning moment, forcing the chisel-tip into the seabed. As resistance grows the dynamics alter, and the anchor will roll toward an upright position, and quickly bury itself.

Some anchor designers and manufacturers use a lead insert in the tip of their anchor and quote specifications such as the percentage of weight on the anchor's tip, incorrectly claiming that a higher weight on the tip means the difference between good and bad setting performance. The lead weight is actually usually present in order to roll the anchor into its correct setting attitude, and while tip weight does help setting it makes no large impact. When the anchor starts to set, the forces on the rode pulling the anchor dwarf any weight forces present, and is the interaction between the blade and the seabed that decides whether the anchor will set - or not.

### setting performance

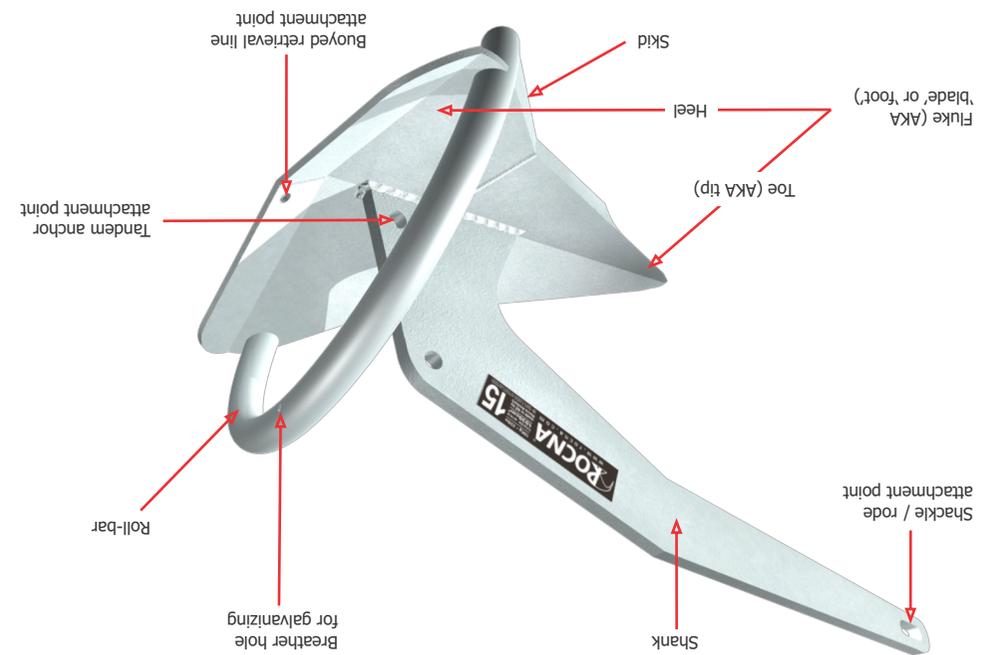
Your Rocna is designed to set as quickly and reliably as possible. Typically it will bury itself within one meter of where it lands. This performance is so dramatic that care must be taken during your normal anchoring procedure, since it will likely take up more abruptly that you are used to. If you reverse your boat too speedily and are not using a chain stop, you risk damaging equipment.

### about roll-stability

Once a Rocna is set, it will remain buried even under high loads. Many other anchors will roll, or "trip", out when overloaded, but a Rocna will remain embedded and maintain its attitude. Even if the anchor moves under extreme load, dragged beyond yield, it will not roll-out once set.

Lack of roll-stability is a common issue with other anchors, particularly the old generation types such as plows, claws, and Danforths.

Veering loads such as rapidly changing tides or unpredictable wind conditions will also cause most other anchor types to abandon their set position and drag. A Rocna will remain buried under most changes of load direction. If jerked out violently, it will instantly re-set owing to the properties that give it such good initial setting characteristics.



## Familiarizing Yourself With Your Rocna

## Intellectual Property Protection

### Design Registration and Patents

We produce a quality product for a demanding market. A great deal of research and development has been invested in the genuine Rocna anchor, and we are serious about protecting the integrity of our design.

The Rocna is directly protected in most countries. This includes but is not limited to: the USA, Canada, New Zealand, and all 27 member states of the European Union.

This protection usually provides the legal environment in which infringing parties, whether manufacturers or importers, may not only be subject to injunctions preventing further infringement, but may also be sued for compensation.

If you become aware of a copy, clone, or other imitation anchor which is clearly based on the Rocna design, we would greatly appreciate it being brought to our attention.

### DO NOT MAKE ILLEGAL COPIES

### Trade Marks and Copyright

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## USER'S GUIDE

please read me carefully



### Congratulations on your purchase of a Rocna anchor!

We are confident that you will experience a substantial improvement in anchoring performance and reliability. To help you gain full satisfaction from your new anchor, please take the time to look over this brief guide.

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- Familiarizing Yourself With Your Rocna
- About Your Rocna and Its Features
- How to Use Your Rocna and What's Different
- Brief General Guide to Anchoring
- Intellectual Property Notice
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## How to Use Your Rocna, and How It Differs to Other Anchors

### shackles and attaching rode

Your Rocna has a slotted attachment point, meaning that a single shackle may be used. This is a more elegant solution than many anchors, which require the use of two shackles. Shackles are usually weaker than chain, so you should select the largest shackle size that will fit through your chain. Loop your shackle through the attachment point, place the final link of chain in position, then screw the pin into the shackle. **Important:** the shackle must then be seized with two turns of stainless steel or monel seizing wire, lest it work its way loose.

### launching and recovery from bow rollers

The Rocna is designed to self-launch from most bow rollers, and it should also return home on its own. Our website features a video demonstration of this.

If you experience difficulties getting it to drop off the bow when released, there are various solutions you may consider. Firstly, the diameter of the roller (if there is only one) makes a difference - the larger the roller, the more easily the Rocna will self-launch. A twin roller system is ideal. Secondly, the angle at which the Rocna rests when pulled home will affect how easily it will slide forward. Lastly, a long length of chain suspended between the shank and your boat's windlass may be heavy enough to hold the Rocna back.

### setting the anchor

As mentioned in the "About Your Rocna" section, your new anchor may set much more quickly than you are used to, particularly if you are most familiar with plows. Take care when reversing your boat under power and do not build up too much speed, as the anchor will grab quickly and the resulting shock could damage equipment or injure personnel.

### using your Rocna in rock or coral

The Rocna is not designed as a specialist rock or coral anchor. This is not to say that the Rocna will not perform in rock; it will find a rock or crevice to hold onto just as well if not better than any other type. But, its design will easily become fouled if care is not taken and retrieval could become difficult. If you have to anchor in rock, we suggest you use a retrieval line as detailed below.

### using a buoyed retrieval line

Although in normal conditions the Rocna is easily recovered using the rode, it is not uncommon for anchors to become caught on underwater objects such as rock, coral, cables, or even sunken wrecks. When fouled on such an object, the anchor may be difficult or impossible to retrieve by simply pulling on the rode. Applying large amounts of force in an attempt to dislodge the anchor in these circumstances risks damaging the anchor, your vessel, or associated equipment.

A solution to this is to use a buoyed retrieval line. This involves attaching a small buoy or other flotation device to the Rocna's dedicated attachment point (see the "Overview" section) using a light rope of a length that is slightly greater than the depth of the water at high tide. The buoy will then float directly above the anchor. If attempts to retrieve the anchor in a normal fashion fail, the buoy may be picked up and the anchor lifted 'backward' using the retrieval line.

This technique has other advantages, such as alerting other mariners to the location of your anchor, and in an emergency you may abandon your anchor temporarily, and return later under controlled conditions knowing it will be easy to find.

### securing the anchor during long passages

The hole in the shank above the tandem anchor attachment point is ideal to use when lashing the anchor down. On the larger sizes we do not recommend that this hole be used for restraining bars or pins, as a wave hitting the anchor at sea could bend and so jam the bar.

### using a tandem anchor

The Rocna has a dedicated attachment point for the use of a tandem anchor in storm or hurricane conditions, if desired. This is recommended as a superior alternative to a Bahamian moor (two anchors attached to a rode configured in a V or Y). A second anchor is set about a boat-length ahead of the primary anchor, its chain rode terminating at the tandem anchor attachment point of the first. The two anchors then work together more efficiently, the load always being evenly shared. In a V or Y configuration, load tends to move from one anchor to the other, always concentrated on just one.

Nb.: Most boaters should never have cause for tandem anchoring. Your primary anchor should be sized so that it is adequate on its own in practically all conditions - if it is not, then upgrade. This functionality is provided for those more "extreme" adventurers who require it.

### about the galvanizing breather hole and re-galvanizing (galvanized models only)

The Rocna has a high quality hot-dipped zinc coating which protects the steel from rust. Unfortunately galvanizing eventually wears off (after roughly five years if the anchor experiences constant hard use) and must be replaced. The breather hole on the roll-bar allows the molten zinc to drain during the galvanizing process. Instruct the galvanizers that the anchor should be hung so this hole is at the uppermost extremity of the roll-bar.

Replacement genuine Rocna labels can be sent to you free of charge upon request.

## Brief General Guide to Anchoring

### the shackle

We recommend the use of tested shackles, especially on the Rocna 15 and above. Stainless steel shackles are popular but care should be taken. A forged type is preferable, and cast versions should always be tested. Select the largest size possible given the maximum pin diameter that the chain links will accept.

As mentioned on the previous page, the shackle must be seized with two turns of soft stainless steel or monel seizing wire. A short term solution is to use a suitably sized electrical cable tie. This prevents the pin from undoing itself, which it will do given a chance.

### swivels

Swivels are a popular accessory helpful in reducing rope twist and allowing the anchor to be rotated upon retrieval. A swivel should be rated to the breaking strength of the chain (not the working load), and care must be taken to avoid cheap and badly built designs.

When installing, be sure the swivel cannot be subjected to a veering load and can rotate properly. It is safe to put a meter or so of chain between the swivel and the anchor, rather than attaching the swivel directly to the anchor. If this is done, an articulating "ball-and-joint" design is pointless, and an in-line rotating design will be of simpler construction and probably a better solution.

We recommend using your anchor without a swivel if you are unsure. You can always install one later if desired.

### what to use for rode

We strongly encourage the use of chain, either for all your rode (preferable) or as a leader of a length at least equal to that of the boat. It is important not to subject any rope portion of the rode to abrasion on rock or coral. It also helps prevent the boat sailing around the anchor. The use of high tensile (G70) chain can save a considerable amount of weight.

Stainless steel chain will not "cone" in the chain locker, but is very expensive and generally weaker than galvanized options.

For rope, polyester is generally superior to nylon, as the latter stretches which encourages "sailing" when at anchor. Three-strand nylon tends to harden in the marine environment and becomes difficult to handle, and tends to twist, and knot, under load. At the high end, square, 8, or 10 plait rope makes ideal anchor rode, as it is easy to handle, and stows in less space.

### chain-stops and snubbers

The use of a chain-stop when anchored is recommended on larger boats in order to reduce stress on the windlass.

If an all-chain rode is being used, a nylon snubber is advisable. This acts as a shock absorber to smooth out peak loads on the anchor, and also reduces vibrations (from the chain moving on the seabed) propagated through the chain into the boat, which results in noise (chain rumble).

### deploying your anchor

Drop the anchor with the boat stationary or starting to drift back with the wind or tide. Try to let the rode out consistently; although the Rocna is designed not to snag the rode, avoid piling the chain up on top of the anchor.

A 3:1 ratio of rode-length to water-depth is minimum ("1" being the vertical distance from the seabed to the bow roller, not the waterline). Generally speaking about 5:1 is appropriate. Even if you plan on using 3:1 (e.g. if the anchorage is crowded), set the anchor at 5:1 first. In any wind you can just let the bow wipe off; in calm conditions motor backward slowly. Be careful - the Rocna will set very quickly and if the bottom offers good holding, you risk damage or injury. In bad conditions, the ratio can be increased up to around 8:1.

The rode's catenary effect on holding power is determined by the amount of chain and/or rope suspended between the boat and the seabed, so the need for a high ratio decreases with increasing depth. 3:1 should remain the minimum. In very shallow water you need more than normal. Then again, if your boat is in shallow water, it is probably well sheltered. There are many variables and common sense should dictate.

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### visit us on the internet

www.rocna.com

for comparison testing results, independent reviews, customer stories, demonstration video, and more

The logo for Rocna Anchors features the word "ROCNA" in a large, bold, serif font with a stylized anchor hook integrated into the letter "O". Below "ROCNA" is the word "ANCHORS" in a smaller, all-caps, sans-serif font.

