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User's Guide

Please read me carefully

 English

Congratulations on your purchase of a Rocna anchor!

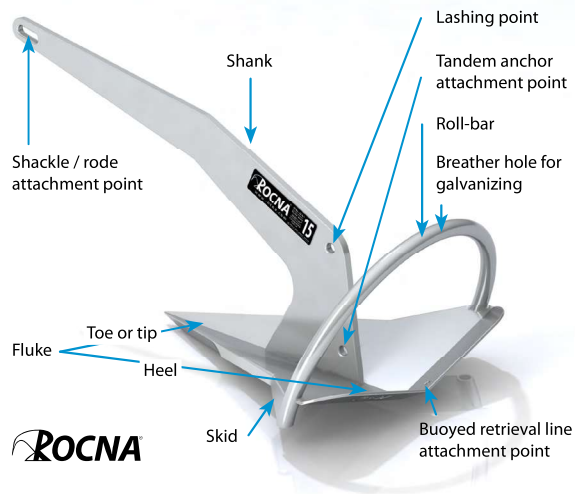
We are confident that you will experience a substantial improvement in anchoring performance and reliability. To help you gain full satisfaction from your new anchor, please take the time to look over this brief guide.

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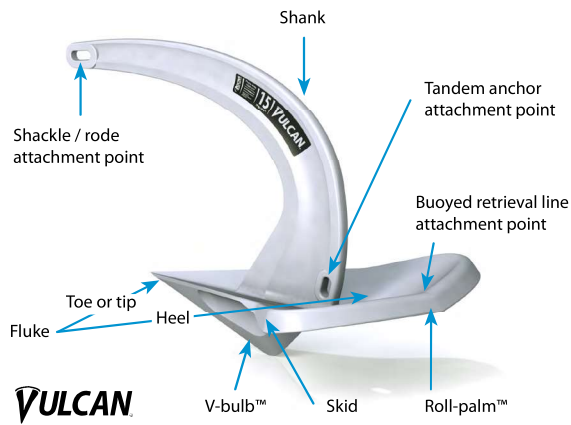
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Familiarizing Yourself With Your Rocna or Vulcan



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About Your Rocna or Vulcan Anchor and Its Features

The Rocna and Vulcan are new generation anchors developed in New Zealand. Best described as fast setting super high holding designs, a genuine Rocna or Vulcan is the world's best anchoring solution for your vessel.

The Rocna anchor range was designed to address the limitations shared by all older and most newer anchors available. The Rocna and Vulcan designs both feature:

- a universal function design criteria that makes them suitable for the widest possible range of seabed types
- maximized resistance and holding power from a large fluke area with efficient distribution of weight and concave fluke geometries designed to grip and hold after setting quickly
- highly reliable setting behavior in the largest range of environments and situations
- excellent penetration abilities even on difficult seabeds such as weed, kelp, and grass
- a resistance to roll-out under heavy or veering loads and a strong tendency to remain embedded even if being dragged
- practical designs with a view to stowage on your boat's bow, resulting in a secure fit intended to minimize damaging and annoying movement when underway
- high strength and resistance to bending in the shank and other load-bearing components
- no moving parts that eventually wear and can be a hazard to personnel.

The Rocna and Vulcan anchors embody a philosophy of strength, durability, simplicity, and clarity of design.

Rocna: About the roll-bar

The roll-bar on the Rocna serves one critical purpose: it ensures the anchor will adopt the correct preliminary 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 fluke tip does not need to be weighted with dedicated ballast. This in turn permits a much larger fluke area and generally optimized weight distribution.

The roll-bar serves a secondary purpose of reinforcing the heel of the fluke. Combined with the concave shape of the fluke, this makes the anchor



massively strong. It may also be used as a carry-point to assist handling.

Vulcan: About the roll-palm™

The roll-palm™ on the Vulcan replaces the roll-bar on the Rocna, and works in conjunction with a cleverly designed shank shape to facilitate the same self-righting function, ensuring the anchor will adopt the correct setting attitude. It supports the anchor on soft mud if it lands on-end when first hitting the seabed. The roll-palm™ also serves to reinforce and strengthen the heel section of the fluke.

The Vulcan makes use of some dedicated ballast on the underside of its fluke to assist self-righting, but this is in the form of a V-bulb™ positioned for maximum leverage which together with the shank geometry enables this weight to be kept to a minimum, optimizing fluke surface area.

Penetrating the seabed surface

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

Setting performance

Your Rocna or Vulcan is designed to set as quickly and reliably as possible. Typically it will bury itself within one anchor's length of where it lands. This performance can be so dramatic that care should be taken during your normal anchoring procedure, since it may set more abruptly than you are used to. If you reverse your boat too speedily, you risk damaging equipment.

About roll-stability

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

Veering loads such as rapidly changing tides or unpredictable wind conditions will also cause most other anchor types to lose their set position and drag. A Rocna or Vulcan 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.

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How to Use Your Rocna or Vulcan

Shackles and attaching rode

Your Rocna or Vulcan has a slotted attachment point, meaning that a single shackle may be used. You should select the largest shackle size the pin of which will fit through your chain end-link. Loop your shackle head through the shank shackle attachment point, fastening the pin through the end link in your chain.

We recommend the use of proof tested shackles, especially on anchor sizes 15 kg (33 lb) and above. Stainless steel shackles are popular but care should be taken. A forged type is preferable, and cast versions should always be proof tested. Select the largest size possible given the maximum pin diameter that the chain end link will accept. When using G40 or stronger chain, appropriately rated high-strength alloy shackles should be used.

Important: conventional shackles must have their pin seized with two turns of stainless steel or monel seizing wire, lest it work its way loose.

For more information, please consult the article on shackles on the Rocna Knowledge Base.

Swivels

Swivels are a popular accessory helpful in reducing rode 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, poorly engineered, and badly built designs.

When installing, be sure the swivel cannot be subjected to a veering load and can rotate properly. We do not recommend attaching the fork of a swivel directly to the anchor shank. It is safer to put a few links of chain between the swivel and 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.

For more information, please consult the article on swivels on the Rocna Knowledge Base.

What to use for rode

We strongly encourage the use of certified chain, either for all your rode (preferable) or as a leader of a length at least equal to that of the boat. Chain is not vulnerable to abrasion on rock or coral. It also helps prevent the boat sailing around the anchor. With both Rocna and Vulcan anchors, scope angle is more important than the weight of heavy chain, so the use of higher strength chains (G40 and even G70) 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.

For more information, please consult the various articles on rode makeup and optimization on the Rocna Knowledge Base.

Launching and recovery from bow rollers

The Rocna and Vulcan are designed to self-launch from most bow rollers, and they should also return home on their own.

If you experience difficulties getting your anchor 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 anchor will self-launch. A twin roller system is ideal. Secondly, the angle at which the Rocna or Vulcan 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 anchor back.

When recovering your anchor onto a bow roller, care should be taken to ensure the anchor safely transitions onto the roller in the correct orientation. The Rocna and Vulcan will both self-right if pulled onto the roller upside-down, but this self-righting action can be violent and in certain circumstances may risk damage to your boat.

Deploying rode and setting the 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 as the vessel drifts back, but avoid snubbing until at least three times the water depth or more has been paid out. Although the Rocna and Vulcan are designed not to snag the rode, avoid piling the chain on top of the anchor.

A 3:1 ratio of rode-length to depth is minimum (1 being the vertical distance from the seabed to the bow roller). Generally speaking about 5:1 is appropriate. If swinging room is tight, the anchor may be set at 5:1 or greater before recovering some rode to finally swing at 3:1. In any wind you can just let the bow wipe off to provide the force to set the anchor; in calm conditions motor backward slowly. Be careful – the Rocna and Vulcan will both set very quickly and if the bottom offers good holding, you risk

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damage or injury from the sudden take-up. In bad conditions, the ratio can be increased up to around 8:1. There is little benefit in increased scopes beyond this.

The chain's catenary effect on holding power is determined by the amount of chain suspended between the boat and the seabed, so the need for a high ratio decreases with increasing depth. 3:1 should remain the minimum. There are many variables and common sense should dictate.

Using your anchor in rock

The Rocna and Vulcan are not designed as specialist rock anchors. This is not to say that they will not perform in rock; they will find a rock or crevice to hold onto just as well if not better than any other type. But, either design can 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.

Looking after the marine environment

Some anchor types such as plows may be dragged for a long distance before holding, which can over time be very damaging to marine life in some areas. The Rocna and Vulcan set very quickly which minimizes their impact on the seafloor. Nevertheless in sensitive areas we advise:

- Where the seafloor is visible, try to drop the anchor on bare sand or mud and away from grass or rocks where sea life makes its habitat.
- Set the anchor with a conservative scope to ensure a fast set in the shortest distance possible, then reduce scope to the minimum deemed prudent to reduce chain length being dragged about on the seafloor.
- Never deploy any anchor on or near coral.

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).

For more information, please consult the relevant articles on the Rocna Knowledge Base.

Using a buoyed retrieval line

Although in normal conditions the Rocna and Vulcan are 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 dedicated attachment point (see the "Familiarizing" 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.

Rocna: the line may be attached by shackle to the buoyed retrieval line attachment point.

Vulcan: the line may be fed through from the top, and a figure-of-8 knot tied in its end such that the line is securely stopped.

Using a tandem anchor (Rocna only)

The Rocna has a dedicated attachment point for the use of a second (tandem) anchor in storm conditions if desired. To maximize ultimate holding power, this is recommended as a superior alternative to dual anchors in a V or Y configuration. A second anchor is set about a boat-length ahead of the primary anchor, its chain rode (do not use rope) terminating at the tandem anchor attachment point of the first.

Attach the tandem anchor chain directly to the tandem attachment point, running the rode over top of the main anchor fluke and through the roll-bar. Failure to follow these instructions could result in failure (pull-out) of the primary anchor.

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. Tandem anchoring is a complicated endeavor and the reader is encouraged to consult the relevant articles available on the Rocna Knowledge Base.

Securing the anchor when underway

The Rocna and Vulcan have shank shapes that are designed to minimize movement when pulled home securely on a bow roller. The anchor must be held tightly back with the roller in the position shown in order to achieve this. If remaining movement is unacceptable, the anchor should be lashed in place.

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It is ideal to lash your anchor with rope when underway. The Rocna features a dedicated lashing point, and the tandem anchor attachment point may be used on both the Rocna and Vulcan. On the larger sizes we do not recommend that these holes be used for restraining pins, as a wave hitting the anchor at sea could bend and so jam the bar. Do not drill new holes in the anchor shank – this will weaken the shank and void the warranty.

A retaining bail fitted atop the bow roller assembly and positioned to contact the top of the anchor shank can also assist in holding the anchor secure.

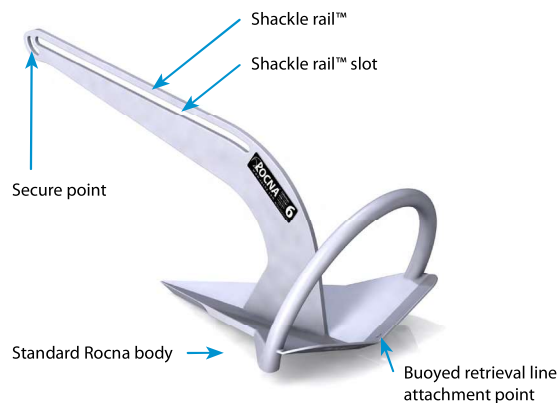
Re-galvanizing (galvanized models only)

The Rocna and Vulcan both have a high quality hot-dipped zinc coating which protects the steel from rust. Unfortunately galvanizing eventually wears off and must be replaced.

Rocna only: 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 in such a way that this hole is positioned at the upper-most extremity of the roll-bar.

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

The Rocna Fisherman Variant



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A float shackled to the dedicated retrieval line attachment point at the heel of all Rocna anchor flukes is the ideal recovery system, offering the best chance of a successful recovery in the event of a fouled anchor.

However, the *shackle rail™* system of the Rocna Fisherman offers convenience with automated recovery. This variant of the Rocna may be used in either of two distinct modes, as the shackle rail™ is complemented by a *secure point* which allows normal safe anchoring when the recovery functionality is not required.

Usage in foul ground

If you believe the anchor is at risk of becoming stuck on the seabed, attach the rode to the shackle rail™ slot. A stainless steel shackle is recommended. *This mode should not be used overnight or if the boat is to be left unattended.*

To retrieve if fouled, move the vessel over the anchor with reduced scope (2:1 is recommended), and pull the anchor backward. The shackle will slide to the other end of the slot, an improved point from which to pull the anchor clear.

Secure anchoring

Shackle to the secure point for overnight or when the vessel is left unattended. This will prevent an unintentional un-setting of the anchor in the event of a wind or tide reversal.

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Lifetime Manufacturer's Warranty Against Defects

Good for the lifetime of the original purchaser and non-transferable.

In plain English: The lifetime warranty applies only to the original purchaser. This is because the history of the anchor becomes difficult to determine once it is second or third hand, and it may have been damaged and repaired at some point, so becoming weakened.

Coverage

Rocna warrants that the product will be free from material defects in and failure of material and workmanship from the date you purchase the product. This includes coverage for any bending or deformation of the anchor, provided the anchor was sized appropriately for the boat based on official Rocna sizing chart as published by us and up-to-date at the time of selection. For anchors larger than 110 kg where Rocna does not provide sizing recommendations selection should be based on classification society rules as appropriate and as referenced by us.

In plain English: Many other anchor manufacturers limit their coverage to "breakage under normal use". Rocna believes in the rugged strength of our design, and covers not only breakage but bending as well.

Exclusions

Coverage does not include:

- Faults and damage caused by using the anchor outside of the Product Specifications and/or the User's Guide;
- Faults and damage resulting from general wear-and-tear;
- Faults and damage where modifications to the anchor have been undertaken by any third party not authorized by us;
- Faults and damage caused by failure of any accessory not approved by us;
- Faults and damage caused by product maintenance and repair services by any third party not authorized by us;
- Faults and the repair of damage to property (including the anchor), and personal injury arising from the act, error, fault, neglect, misuse or omission of any user of the anchor;
- Repair of damage to property (including the anchor), and personal injury due to external causes, including accident, abuse, misuse, failure to perform preventative maintenance and/or repairs;
- Repair of damage to property (including the anchor), and personal injury caused by the operation of the anchor other than in accordance with recommended operating procedures as set out in the User's Guide or otherwise than in accordance with the directions or recommendations of the manufacturer.

In plain English: If you damage the anchor by way of misuse you cannot expect a replacement or your money back. Normal wear-and-tear and/or corrosion of the sacrificial zinc coating is not covered. You should read and understand all of the exclusions as they are important.

Honoring the Warranty

Where the anchors are faulty or damaged the reseller will replace the product if available, or if a replacement is not available, give you a full refund of the purchase price.

Warranty Claim Procedure

If you have a warranty claim, please download the Warranty Claim form at www.rocna.com/product-range/warranty-information, fill it out as fully as possible, and submit to support@rocna.com. One of our customer service personnel will then be in touch to determine the best means to address your concerns.

The logo consists of the lowercase letters 'en' in a white, sans-serif font, centered within a solid black square.**Disclaimer**

Your use of the products must be strictly in accordance with the User's Guide so that the anchor is not used for any purpose for which it is not suitable. You shall solely be responsible for using all necessary skill and care in handling, storing, maintaining, and using the anchor. You acknowledge that we make no specific representation nor do we hold any liability to you as to the effectiveness of the anchor in climactic or inclement weather conditions or in specific tidal situations. Any information about the anchor supplied by Rocna is provided for guidance only and nothing contained herein should be construed as a recommendation to use any particular product in the range of products. You shall make your own determination as to its fitness or suitability for your purposes prior to use. The User's Guide can be found on Rocna's website www.rocna.com.

Liability

Except as expressly provided for in this Warranty, Rocna's liability to you whether in contract, tort or otherwise for any loss, damage or injury arising directly or indirectly from any defect in or non-compliance of the products or from any other breach of Rocna's obligations under this Warranty shall not exceed an amount equivalent to the price invoiced by the reseller for the faulty products or the products giving rise to the claim. Rocna shall not be liable for any indirect or consequential injury or specific damage or loss of any kind whatsoever.

Local Consumer Law

Nothing in this Warranty affects your statutory rights under any consumer guarantees at law or other legislation applicable to the place of sale which may not be excluded or limited.

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Visit us on the internet:

www.rocna.com

To learn more about using your Rocna or Vulcan anchor, please take a look at the Rocna Anchors Knowledge Base – a collection of information and material relating to anchors, accessories, and using them:

kb.rocna.com/kb

Get to know Peter Smith, designer and sailor, better at his personal website:

www.petersmith.net.nz

Disclaimer & Copyright

The descriptions and guidelines shown in this literature should be used as a general reference only. For any further technical information please contact our Technical Service. The contents of this guide are based on the latest information available at the time of publication.

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