

# Anchors Away!

Anchoring is one of those areas of boating that is easy to pay little regard to – it's not a sexy subject, and for a good many ribsters it's not actually something they do that often.

**A**lmost every boater that has anchored more than a few times, though, and certainly those that anchor in anything other than flat, calm conditions, have plenty of tales to tell about when anchoring has not gone quite right! In this article we'll look at anchoring and share some of those experiences - after all, there comes a day for all of us when getting an anchor down and ensuring it holds makes the difference between a minor incident and a major catastrophe!

Firstly, why anchor? Of course, most of the time it is simply down to the need to hold the RIB in one area so that you can perhaps grab a bite to eat, relax a bit or even go for a swim. Being able to anchor, though, is a key element in your ability to

respond to an incident, and the anchor is a critical part of your safety kit. A medical emergency might be better dealt with at anchor; transferring fuel from backup containers or dealing with engine issues both require the capacity to anchor quickly and effectively.

Unfortunately, there are a good many people who go out boating without an anchor on the premise that they are not intending to, and never will, anchor. In some locations there are so many mooring buoys around, and the boat leaves and returns to a marina berth or a slipway, that you can see to a certain extent why the skipper overlooks the anchor. This, of course, ignores the safety aspect, so the rule must be that you always carry an anchor, irrespective of where you are going and what your plan is for the day.

So what constitutes an effective anchor set-up? It could be argued that your anchor system contains basically three elements: 1) The anchor itself; 2) The rope or chain between the anchor and your RIB; 3) The means of attachment to the RIB. Let's look at each individually.

**The anchor:** The anchor is basically a shaped lump of metal that is designed to dig into the seabed and resist the pull of the craft. Over the years many designs of anchor have evolved; however, the ones found most regularly on RIBs and in chandlers are the CQR/Plough, Danforth, Delta, Bruce and Grapnel. (See box out.) Each have their own virtues, but often on a RIB I find it is actually the ability to stow the anchor in the locker, and which ones are available from the local chandlers, that determine which is used on a particular



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RIB. Generally speaking, with the exception of a Grapnel, all of the anchors mentioned are good all-rounders and have strong holding properties in a variety of ground conditions. Grapnel anchors, in all but the calmest conditions (and smallest boats), are poor performers, but the ease with which they can be stored makes them popular. By all means carry one as a secondary anchor (or perhaps for anchoring in calm sheltered waters), but an anchor that holds better should also be carried.

The anchor 'rode': This refers to the length of chain and/or rope between the anchor itself and the craft. On RIBs this should almost certainly be a combination of chain and

rope. The benefit of a length of chain attached to the anchor is twofold. Firstly, it increases the overall weight of the anchor, and secondly the chain sits on the seabed, ensuring the pull on the anchor itself is horizontal rather than angled – the latter being more likely to be the case where rope is attached straight to the anchor. The more chain that is present the better, although the reality in a RIB is that you are going to have to haul it in manually, so realistically 10–20ft tends to be the norm. How much rope to carry is a question I'm often asked about anchoring. The 'rule' is that with a chain/rope combination you should be able to deploy five to six times the depth of water you intend

anchoring in – this length is referred to as 'the scope'. Clearly, therefore, where you do your boating and what the typical depths are determine what length of line you will need.

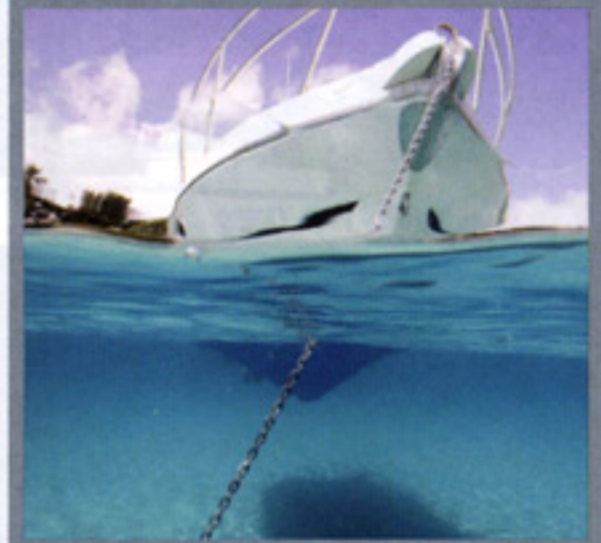
Looking at it practically, most of the time you will be anchoring in pretty calm conditions (it is no fun anchoring when it is rough!), so you may be able to deploy less than five or six times and the anchor quite happily hold. That said, the event you want to plan for is an emergency anchoring, and a good solution is to have a main anchor set-up with a 30m line attached, but then to have stowed away an extra line (perhaps a boat jumble bargain) of 30–100m that you can attach to your main anchor line to increase the available scope. This extra line doubles as a potential towline so is doubly useful.

In terms of the diameter of rope and chain, the recommendation for RIBs would be 6mm or 8mm for chain link diameter, depending on the size of your craft, and 10mm or 12mm for the rope, with the preference being for the larger diameter. See table left.

Attaching the anchor to the RIB: This should be the easy bit but, as with anything boat related, there are a few things

# ANCHORS

ALWAYS CARRY THE CORRECT ONE



Plough



Delta



Grapnel



Bruce



Danforth

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## Anchor size guide ~ 1 kilo = 2.2lbs (approx)

Boat length (m)	Dinghy	6	8	9	10	11
<b>Type of anchor</b>						
CQR/Plough	5lb	15lb	20lb	25lb	25/35lb	35lb
Danforth	5lb	15lb	15lb	20lb	25lb	30lb
Bruce	-	5kg	7.5kg	7.5kg	10kg	10kg
Delta	-	6kg	6kg	10kg	10kg	10kg
Grapnel	1.5 to 8kg	-	-	-	-	-

**Notes:** The unusual labelling between kg and lbs reflects the differing way that the anchors are typically stamped. 'CQR' is actually a trade name; 'Plough' is the name generally used for versions that look very similar!

All information courtesy of Jimmy Green Marine: www.jimmygreen.co.uk



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to consider. Almost all RIBs will have a D-ring fitted below the tubes at the bow of the craft; this is a key strong point on the craft and is my preferred attachment point for the anchor. The reasons I prefer the pull of the anchor to come from the D-ring are: 1) It is very strong and won't fail; 2) The anchor line is not running over the tubes, potentially causing chafing; 3) The anchor line is not creating undue pressure on the tubes as it tugs due to load coming on and off the line; 4) Very few RIBs have proper fairleads (a contraption that secures the anchor line as it passes over the tube at the bow), tending to mean that the line moves from being at '12 o'clock' to the bow, to a range between 10 o'clock and 2 o'clock – once again causing chafe.

The disadvantage of using the D-ring is that it is not generally easy to get to when at sea – hence a bit of preparation is needed. Many RIBs run

permanently with a line attached to the D-ring. This is known as the 'painter' and is used as the forward mooring line; when not in use it is run back into the RIB and secured. Alternatively, a line can be attached to the D-ring as needed – a line spliced to a carabiner is great for this as it is easy to connect but assumes, of course, you can get to the D-ring.

So, to secure the anchor line to the RIB, my preference is to attach the painter to a point on the anchor line where the combination of the anchor line and the painter line gives you the required 'scope'. This means that the pull runs from the painter straight down the anchor line, with the remaining anchor line (which is not under any load) secured to a point inside the RIB as a backup. I tend to use a triple



## SEA ANCHORS

Aside from commercial vessels it is fairly unusual to come across sea anchors on RIBs, but they should be far more common – particularly on craft running regularly in rougher conditions and in deeper water. A sea anchor is, in effect, a parachute-type contraption secured via a long line (10 to 15 times the boat's length) to the bow of a vessel. A RIB stopped dead in the water will typically lay totally beam-on to the wind/waves (not a pleasant position in rougher conditions!); deploying a sea anchor will pull the vessel round so that it sits bow into the wind/waves – a far more comfortable and safer position if there is a need to deal with an engine issue, have a break etc.

A great example of the benefit of a sea anchor can be seen in a video of an RNLI Atlantic rapidly deploying one to pull the bow into the wind and to massively reduce the rate of drift. How quickly the crew were able to deploy the sea anchor is a key aspect of good boat set-up.

Youtube.com – search 'rnli rye both engines dead'

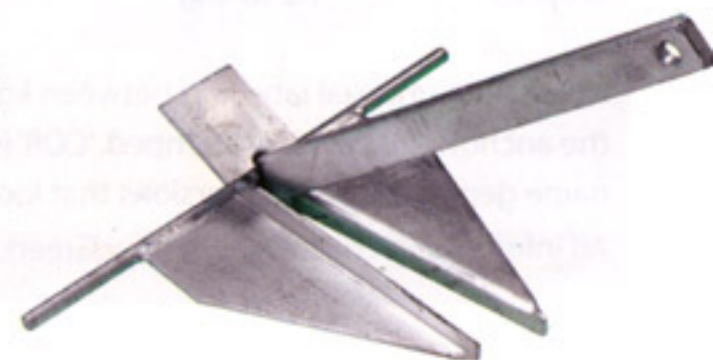


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sheet bend knot to join the two lines (the loop for tying the sheet bend being in the anchor line).

Having looked at the set-up on the anchor system, what about the actual process of anchoring? In previous articles I've introduced the idea of A-P-E (Assess, Plan, Execute) as a mantra to follow before any on-water manoeuvre. Follow this process for anchoring, too, and you won't go far wrong. Firstly, where are you going to anchor? What does the seabed consist of – mud, sand, rock etc? Are there any prohibited areas for anchoring – shellfish beds, cables, high-speed ferries passing straight through etc? What is the depth at the intended anchorage, and how will tide affect it during your stay? Have you got enough

...there comes a day for all of us when getting an anchor down and ensuring it holds makes the difference between a minor incident and a major catastrophe!





Making a spring.



Note length of chain to length of rope, this is critical.

line, and how much should you be putting out? Equally, is there enough depth to anchor in throughout your stay? What is the wind direction now and what is it likely to be during your stay? If you drag will you drag into immediate danger? How will wind and tidal stream affect you during your stay? What direction should you approach your intended anchorage point from, and is there the depth to do so? How will the RIB swing whilst you are anchored? (If you are in the vicinity of other craft, then


as the direction of wind and tide varies, so will your position; RIBs will not always 'sit' in the same direction as a yacht may, for example.) Have you briefed your crew on exactly what you expect of them? Having assessed and planned you should be ready to do the execution bit (don't forget the other 'E' – the escape route if it goes pear-shaped).

With the anchor on deck ready to be deployed, advance up to the intended drop point using a slow controlled approach into the combined effect of wind/

tide. Stop at the intended point, ease the anchor over the side and start to lower it. You will feel when it touches the bottom; slowly ease out the line, allowing the craft to drift back as you do so – avoid just dumping all the line in a pile on the seabed

...anchoring is not difficult but, like any boating task, practice makes perfect.

### Types of anchor

CQR / Plough	Danforth	Bruce	Delta	Grapnel
				
<p>Strong anchor with good holding. Can be 'folded' into lockers.</p>	<p>Strong anchor with good holding – always lies flat. Can be difficult to get into smaller lockers.</p>	<p>Good anchor with excellent holding.</p>	<p>Excellent anchor which stows well into a bow roller – can be difficult to stow on a RIB.</p>	<p>Poor holding compared to other anchors. Easy to stow, though.</p>



or you will probably snag the anchor and have to start again. Once the line is all out – you did tie it on, didn't you?! – let the RIB settle and apply a little bit of reverse to dig the anchor in. Is the anchor dragging and failing to dig in? This has happened to me plenty of times and is usually either due to weed on the seabed or the

anchor failing to orientate itself correctly. Usually this means another attempt. But how can you tell if you are dragging? There are a few ways: 1) Line up two fixed objects directly out of the side of the boat (a 'transit') – if they stay pretty much in line you aren't dragging. 2) Take a bearing to a fixed object abeam of you, and monitor it to see if



Methods of splicing and shackle attachment



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it changes. 3) Use the 'anchor watch' feature on your GPS – this is OK but is only really suitable for larger movements, as a minimum distance of travel has to be set to avoid random alarms due to the swing and general movement whilst at anchor. 4) Feel the line – if it is vibrating it is probably dragging.

Now you can relax or fix the engine! Do keep an ongoing eye on things, as many a boat has dragged after an initially successful anchoring session (yep – got that t-shirt!). This is a key reason to not leave a boat at anchor unattended.

Recovery is straightforward, but you will often need someone at the helm to gently progress the RIB to above the anchor to take load off the line as it is recovered. Even if this is unnecessary, do ensure the engine is started and running properly before raising the anchor.

Remember to take the time to stow the anchor properly, and do tie it down in the locker to avoid

it punching through the deck over time.

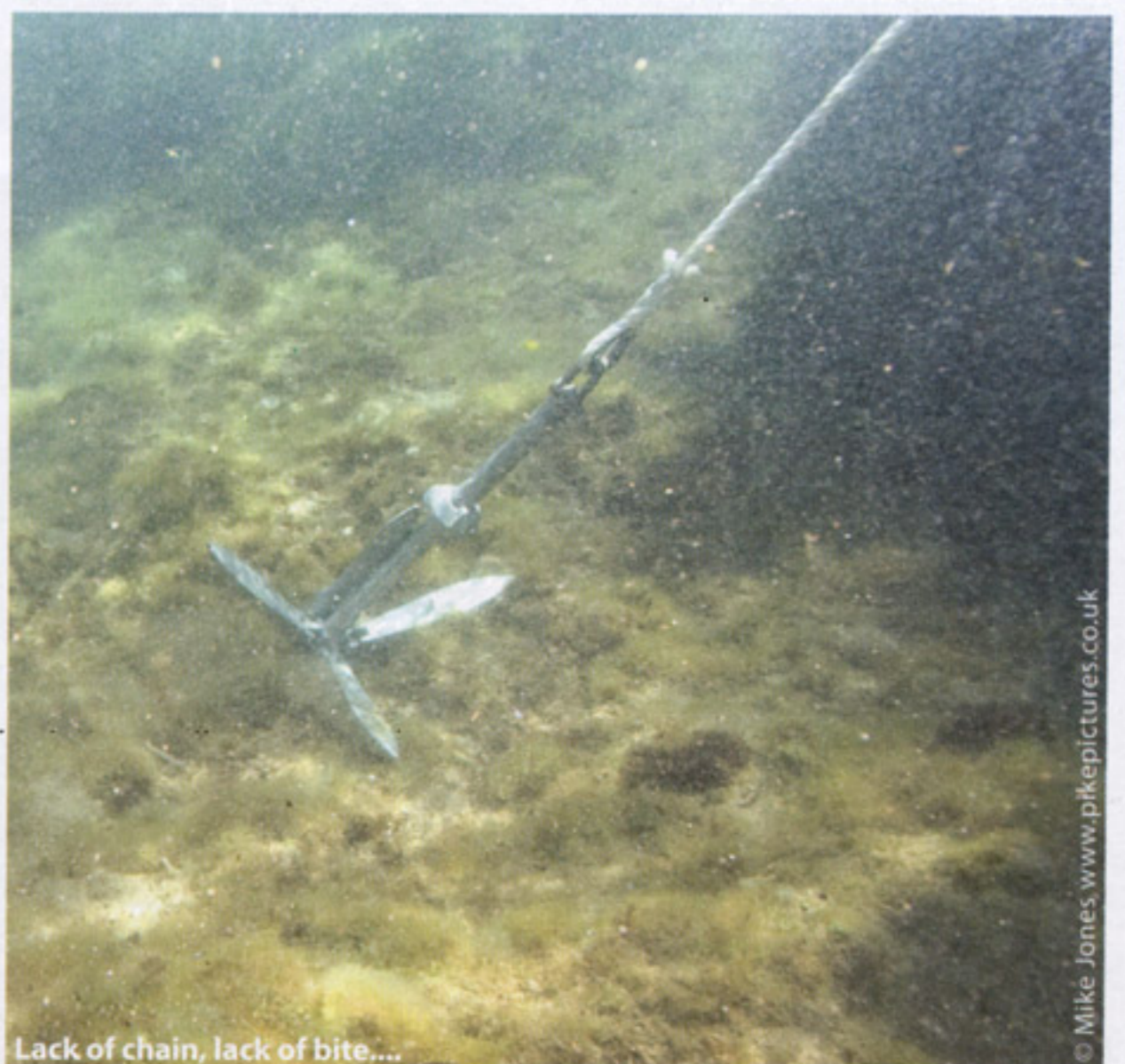
Sometimes anchors do get stuck – often this is down to anchoring in rocky areas; a method or two of breaking the anchor free is handy to have. One method is to recover the majority of the line and then motor forward slowly over the position of the anchor to bring load onto it from a different angle. Usually this is successful as the change of direction rotates the anchor out, but extreme care must be taken to keep the line well clear of the prop. In calm conditions the boat can be reversed with the helm at full lock to once again rotate the anchor out, bringing the stern of the craft into the elements. There are devices available commercially that you can deploy when anchoring that can potentially assist in the event of a stuck anchor; however, the above methods will tend to work on any boat.

In summary, anchoring is not difficult but, like any boating

task, practice makes perfect. Certainly, if you are not a regular 'anchorer' then do put some practice in, as the time you need to get it right should not be the first time you have anchored in many years!

**Paul Glatzel**

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Lack of chain, lack of bite...

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