

# GP14 Cruiser Training Course

Shore Session/s

Anchoring

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# ANCHORING

- Choice of Anchor (for GP14)
  - Size: Typically 2 kg, for heavy duty use consider up to 4 kg
  - Type: Recommended types include
    - Original Danforth, or the best of the copies
      - NB Fortress and Guardian are excellent aluminium versions, of lighter weight, so their smallest model (G-5 (1.2 kg?)) is thought to be sufficient
    - Original Bruce, or the best of the copies
    - Mantus Dinghy Anchor looks excellent, at a price, and looks very similar to the truly excellent Rocna, but in a dinghy size.
      - But I have no first-hand experience of using it, although I use a Rocna on my bigger boat and I am delighted with it.
      - Only 0.9 kg,
        - » about half what I would expect for a GP14,
        - » but online reports suggest very impressive performance.

# ANCHORING



**Danforth (left); stainless steel version of Bruce (right)**

**Danforth designed 1939; Bruce designed 1970s**

# ANCHORING



**Mantus Dinghy Anchor**

Sold only as complete kits, comprising anchor, warp (with eyesplice and s/s thimble, shackle, nose cover, storage bag, **but kit does not include any chain.**

# ANCHORING

- **Choice of Anchor (for GP14)**
  - Type: Generic Danforth or Bruce
    - There are some truly excellent generic Danforths and generic Bruces, which hold well, and in some cases they are very economical.
    - There are also some very poor generic versions which do not hold at all well, so if you are looking for a budget buy be warned about this risk.
    - One strategy may be to talk to other owners who have first hand experience of using the particular example in question.
    - Another strategy is to get to know, accurately, exactly what the originals look like (detailed shape, sharpness of points, angles, etc.), and consider only those copies which look almost exactly the same.

# ANCHORING

- **Choice of Anchor (for GP14)**
  - Danforth - whether genuine or generic;
    - In good normal conditions, the genuine ones and the best of the generics are truly excellent
  - Can sometimes have problems when tide reverses
    - Likely to be pulled out, and may drag some distance before digging in again
  - On some stony bottoms may get a stone jammed between flukes and stock, preventing flukes from pivoting
    - If flukes jammed while pointing upwards it will never dig in

# ANCHORING

- **Choice of Anchor (for GP14)**
  - Bruce - whether genuine or generic;
    - **Designed for oil rigs, and works best in larger sizes**
    - **Designed for use with short scope**
    - **On some stony bottoms the “cup” can pick up a stone just the right size to prevent it from digging in.**

# ANCHORING

- Choice of Anchor (for GP14)
  - Bruce
  - Works best in large sizes; originally designed for North Sea oil rigs. Designed by Peter Bruce, Isle of Man, c.1971





# ANCHORING

- **Choice of Anchor (for GP14)**
  - Type: Mantus Dinghy Anchor
    - I am not aware of any generic copies of the Mantus Dinghy Anchor. It is therefore a full price anchor.
    - Question mark whether it is heavy enough.
      - I would have more confidence in it for a GP14 if it were twice the weight
      - But online reports suggest very impressive performance.
      - And adding chain to the kit should improve its holding power
  - In broadly same price range as comparable Guardian (and Fortress?)

# ANCHORING

- Choice of Anchor (for GP14)
  - Type: for heavy duty use, 4 kg Rocna
    - Arguably the best anchor (overall) on the market
    - “New generation” anchor
    - But; 4 kg is the smallest size which they make, and a bit big for normal GP14 use. Rated as suitable for  $4\text{ m} \leq 2\text{t}$  or up to  $6\text{m} \leq \frac{1}{2}\text{t}$ . A modestly overweight GP14 (4.3 m) with 2 x 90 kg adults plus kit aboard might come to something over 500 kg, say  $\frac{1}{2}\text{ t}$ .



# ANCHORING

- Rocna 2 kg
  - Would seem to be the ultimate option
  - But not manufactured in that size.
  - I have emailed them to ask ... ..
    - Reply still awaited (as of 11 March 2020)

# ANCHORING

- **Choice of Anchor (for GP14)**
  - Type: Heavily qualified recommendation includes
    - **Fisherman (a.k.a. Admiralty pattern)**



**Date of design lost in antiquity; certainly pre-Roman**

# ANCHORING

Remains of Roman anchors (left) in Malta Maritime Museum, plus (right) a somewhat questionable modern reconstruction



# ANCHORING

- Choice of Anchor (for GP14)
  - Type: Qualified recommendation includes
    - Fisherman
      - Owners are divided as to whether they swear by them or swear at them, and many of the latter won't have one aboard at any price.
      - But the RNLI routinely use them (or at least used to) as emergency/storm anchors
      - Unrivalled on rock; relatively poor holding in sand or mud.
      - Needs to be at least twice the weight of other types, so at least 4 kg for a GP14
      - Can be awkward and cumbersome and slow to deploy, and in shallow water they are potentially dangerous to swimmers and boats.

# ANCHORING

- Choice of Anchor (for GP14)
  - Type: Positively avoid:
- Folding grapnel; notoriously poor holding

**Folding Grapnel**



Area of flukes too small,  
and flukes too blunt, and badly angled.

Leading candidate for the  
Square Wheel Award -  
outstandingly worst in  
class!

Surprisingly, they are still  
manufactured, and still  
widely sold.

# ANCHORING

- Choice of Anchor (for GP14)
  - Type: Caution against:
    - Plough types, epitomised by CQR
      - Design nearly 90 years old, 1933
    - These are highly respected, and again work best in larger sizes; work very well for yachts, but I have found them unreliable in dinghy sizes.





# ANCHORING

- Choice of Anchor (for GP14) - Prices

- Bare anchors:

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| – Lewmar Claw (generic Bruce) 2 kg | £17.50 from Force 4                 |
| – Generic Danforth 4 kg            | £25 from Force 4                    |
| <hr/>                              |                                     |
| – Mantus 1 kg galvanised           | £59                                 |
| – Guardian G5 (1.2 kg? Aluminium)  | £99 from Amazon                     |
| – Fortress FX7 (1.8 kg Aluminium)  | £150 from Force 4                   |
| – Guardian G7 (1.8 kg Aluminium)   | <del>£98</del> £88 from Jimmy Green |
| – Mantus 3.6 kg galvanised         | £135                                |

2018 prices (I think)

Note that the 0.9 kg or 1 kg Mantus steel anchors have significantly smaller dimensions than the Guardian G5 aluminium anchor

- Complete kits:

- |   |      |
|---|------|
| – Mantus Dinghy Anchor (0.9 kg) galvanised        | £116 |
| – Mantus Dinghy Anchor (0.9 kg) stainless         | £213 |
| – Guardian G5 Commando System (1.2 kg? Aluminium) | £185 |
| » from Mylor Chandlery                            |      |

- All the Mantus prices above are from the importers, Sea Gear Supplies Ltd.

# ANCHORING

- Choice of Anchor (for GP14) - Prices

- Bare anchors:

My personal choice

- Lewmar Claw (generic Bruce) 2 kg e.g. £17.50 from Force 4
- Generic Danforth, at least 2 kg

- 2 kg Danforths:

- <https://shop.willsmarine.co.uk/products/danforth-2kg-anchor-kit-mms2091>  
(Looks to be authentic shape!)
- <https://www.yachtshop.co.uk/3886/products/danforth-type-anchor-kit-2kg.aspx>  
(Inaccurate shape??)
- [http://www.theanchorstore.co.uk/proddetail.php?prod=2kg\\_danforth\\_anchor\\_kit\\_with\\_20m\\_x\\_8mm\\_rope\\_%26\\_2m\\_x\\_6mm\\_chain](http://www.theanchorstore.co.uk/proddetail.php?prod=2kg_danforth_anchor_kit_with_20m_x_8mm_rope_%26_2m_x_6mm_chain) (Inaccurate shape??)
- (<https://boatworld.co.uk/boatworld-2kg-danforth-kit>) (Inaccurate shape??)
- (<https://www.savebarn.co.nz/boat-anchor-danforth-2kg-galvanised-up-to-45m-craft-20224>) (New Zealand!)

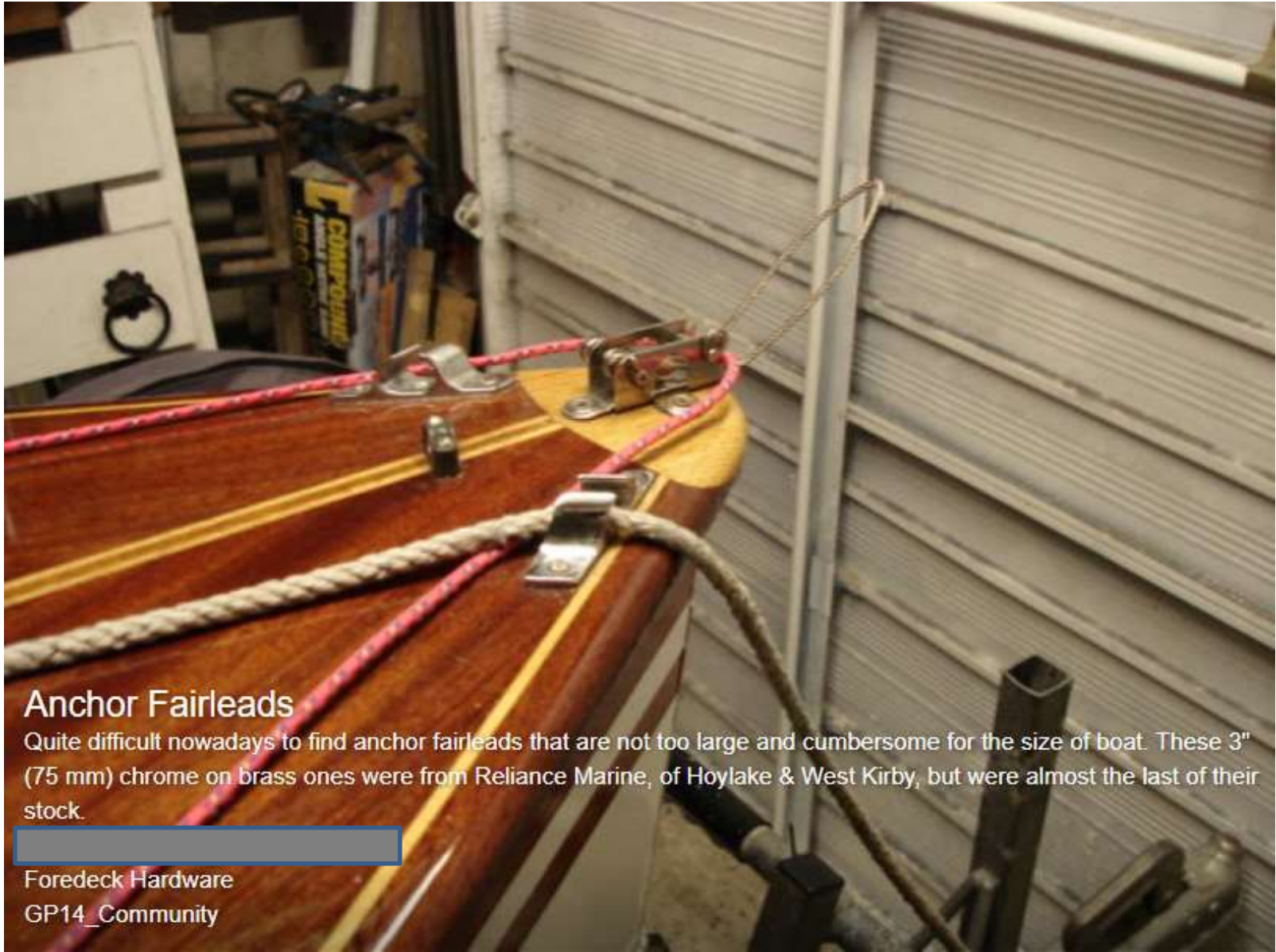
# DEPLOYING THE ANCHOR

- **Rode**
  - **At least 30 m of warp, preferably nylon, at least 6 mm diameter.**
    - Nylon for its stretch characteristics, to absorb shock loads
    - That is marine grade nylon; the inferior stuff from domestic DIY stores is much too loosely laid up.
    - Polyester, provided it is not the prestretched type, is the second-best choice.
    - 6 mm minimum for comfort and safety in handling it under load.
    - Avoid using knots underwater; splices are much safer and more reliable.
  - **With at least 2 m of 6 mm chain between warp and anchor.**

# DEPLOYING THE ANCHOR

- **Fittings**
  - At least one anchor fairlead on the bows, preferably one each side, absolutely as near the stem as possible
  - A cleat somewhere convenient to secure the warp;
    - I like to have a low profile horn cleat on the king plank
    - But racers will want the foredeck uncluttered, in which case have a cleat somewhere convenient inboard.
  - A means of stowing the rode.
    - Personally I use a bucket, and flake it in.
    - Some owners stow it on a reel.
    - Back in the sixties I used to coil it, put light stoppers on the coil, and stow it under the (original slatted) floorboards.

# ANCHORING

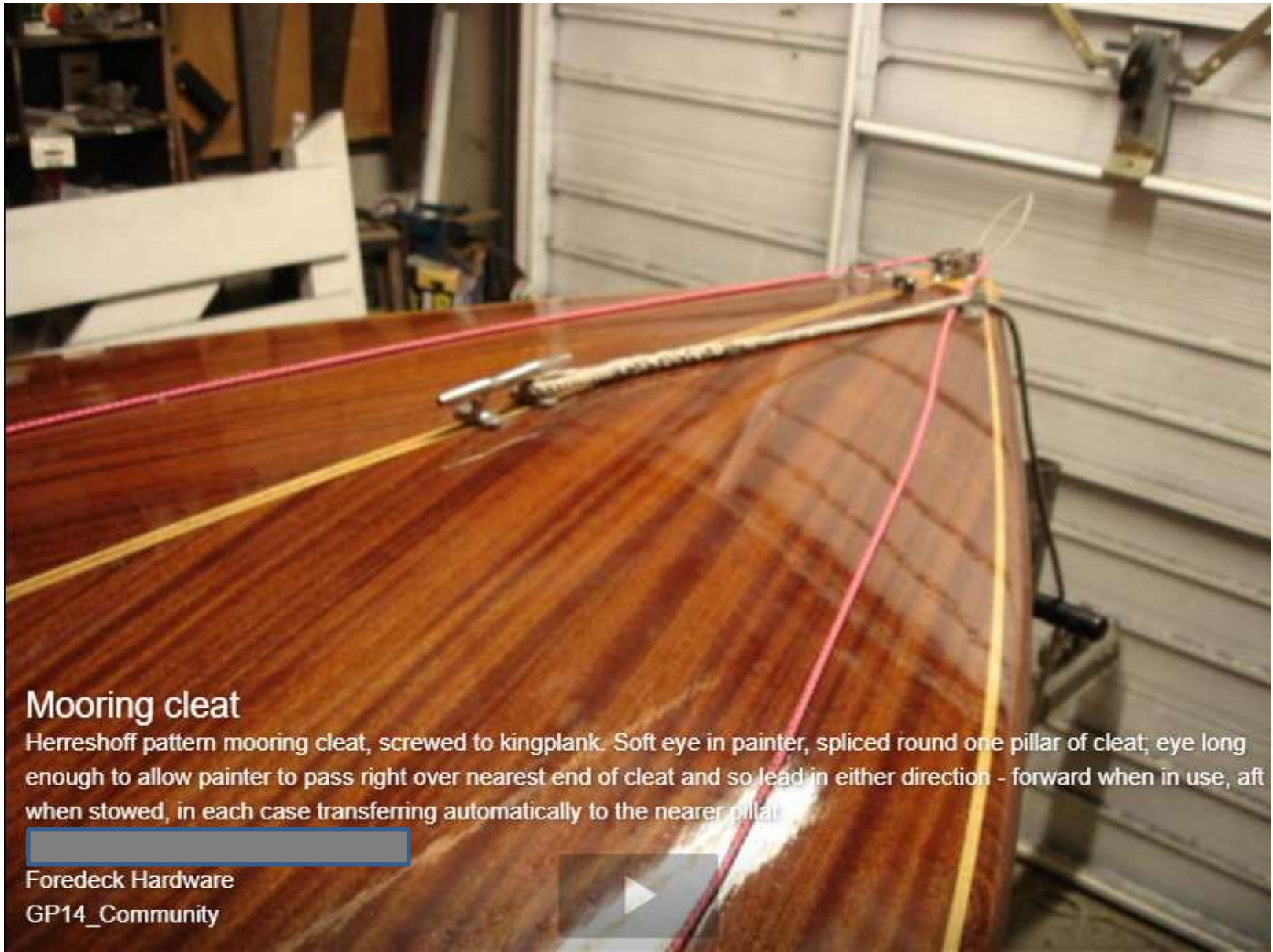


## Anchor Fairleads

Quite difficult nowadays to find anchor fairleads that are not too large and cumbersome for the size of boat. These 3" (75 mm) chrome on brass ones were from Reliance Marine, of Hoylake & West Kirby, but were almost the last of their stock.

Foredeck Hardware  
GP14\_Community

# ANCHORING



## Mooring cleat

Herreshoff pattern mooring cleat, screwed to kingplank. Soft eye in painter, spliced round one pillar of cleat; eye long enough to allow painter to pass right over nearest end of cleat and so lead in either direction - forward when in use, aft when stowed, in each case transferring automatically to the nearer pillar.

Foredeck Hardware  
GP14\_Community



# ANCHORING



## Foredeck Hardware

Small bullseye fairlead on kingplank is for genoa reefing line.

Foredeck Hardware  
GP14\_Community



# ANCHORING





# DEPLOYING THE ANCHOR

- AVOID AT ALL COSTS

- Deploying the anchor abaft the shrouds

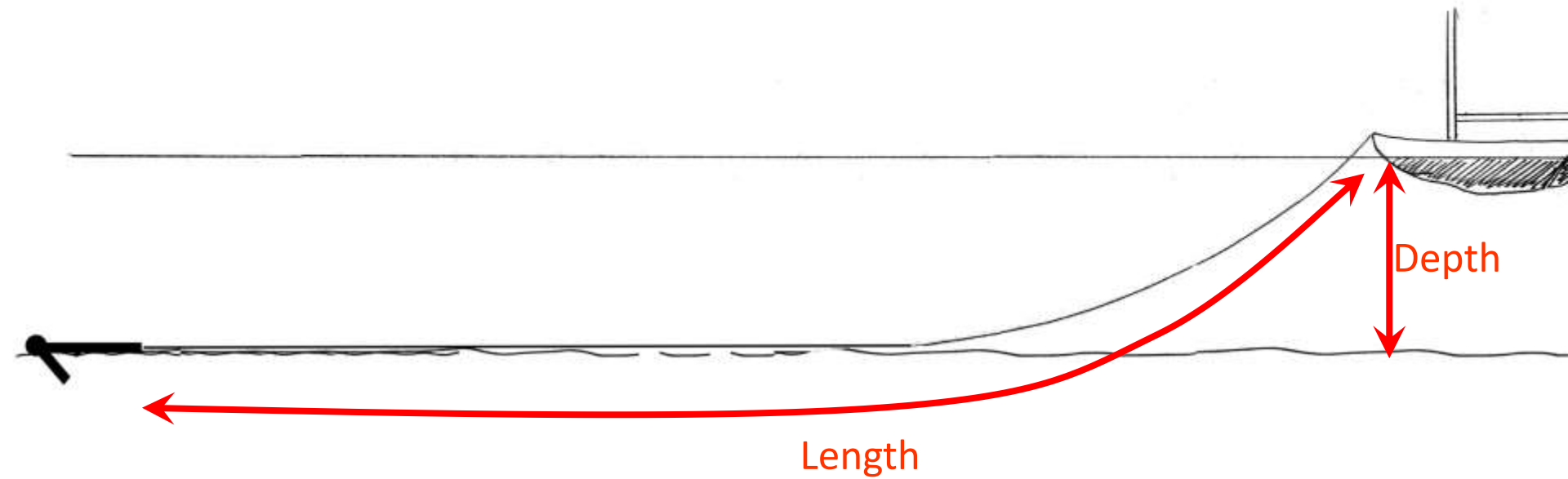
- It will then lead over the side of the boat,
- Potentially at right-angles to the hull.

• This is a prime recipe for capsizing in a strong wind or tide!

– It absolutely **MUST** be deployed to hold the boat “by the nose”, i.e. with the warp kept as close to the stem as possible.

# ANCHORING

Scope: long enough to give horizontal pull at anchor



# Scope

- Needs to give horizontal pull at anchor
  - Chain greatly helps this
  - Leaded ropes exist - usually leaded only at anchor end of rope - a half-way house
- Minimum length depends on depth of water
  - And on type of rode
  - And on tide/current and wind conditions
- Old standard was 3:1
  - Often now felt to be not enough
  - But may be sufficient if chain heavy enough

# Scope

- Leaded ropes exist - usually leaded only at anchor end of rope

**Liros**  
Leaded Rope Anchor Lines



Second-best choice of material

## Details

## Reviews

## Product Questions

It is not always convenient to use chain with an anchor, particularly on a RIB or on a secondary anchor. These anchor lines have lead weight built into the last 10 metres which means you can use an anchor without chain. They're easy to handle, easy to stow and has a stainless thimble spliced onto the end. Made from 100% Polyester, they are chafe and UV resistant, and come in a smart storage bag.

# Scope

## Scope now recommended:

- 6:1 for rope
- 4: 1 for chain (or rope plus chain?)
- 3:1 for just a lunch hook
- But personally I still think 3:1 probably sufficient for dinghies in reasonable conditions with rope plus chain. **Use more in storm conditions in exposed anchorages.**

# Setting it in

## Under sail, 3 options:

- Come head to wind, drop back down wind, paying out cable progressively; ...
- ... then when you get near the end of the warp, snub the warp (i.e. cleat it off abruptly) to dig the anchor in.
  - Consider backing one or both sails
- In a tideway, come head to tide, douse sails, drop back down tide, paying out cable progressively; and again then snub the warp.
- In crowded waters, come to a stop, lower cable progressively, then monitor how she holds.

# Setting it in

## Under sail, 3 options:

- In a tideway, come head to tide, douse sails, drop back down tide, paying out cable progressively; and again then snub the warp.
- Having said that, I normally find that the second option works even if not in a tideway; I just let her blow gently down wind under bare poles as I pay out, and I rarely find any need to snub the warp.
- But I do then monitor how she is holding, until I am satisfied that she is secure.

# Setting it in

## Under sail, fourth option:

- “Incidentally, I found in a quick test that the Navy method of anchoring, where you drop it when the ship is still making way, is very good for little boats, as it digs it in.
- “You then fire the cannons and when the smoke clears the ship rounds up with its sails already furled!”

*David Morton, on Openboat*



# Setting it in

## On soft mud

- **May be no real need to dig it in, as such; it will do that of its own accord**

# How not to do it ...

1. **Ship story**
2. **(Video)**

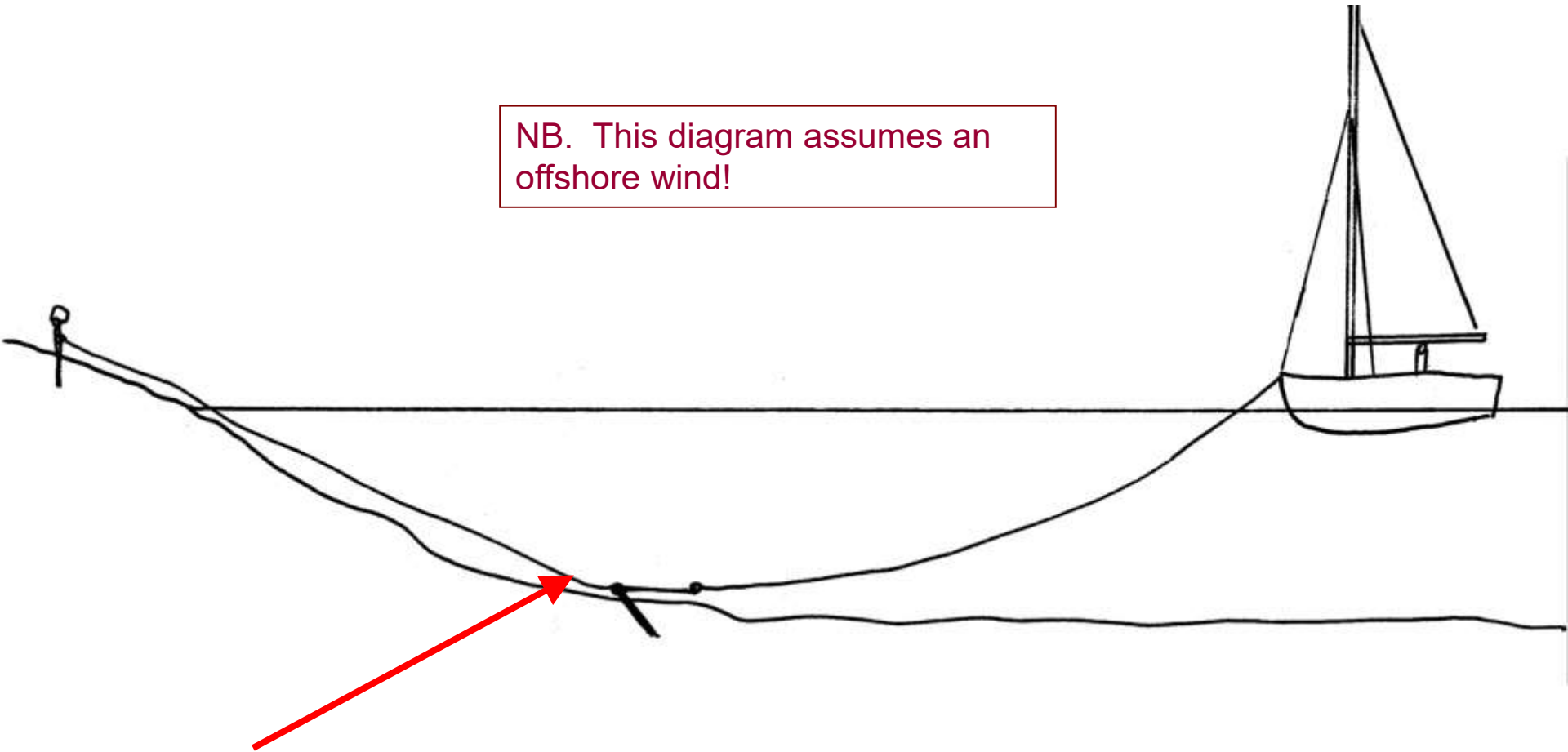
[www.officeclips.com](http://www.officeclips.com)



# Remote “Anchor Off”

With tripline - dinghies

NB. This diagram assumes an offshore wind!



Trip Line, to crown of anchor,  
secured ashore to tent peg or whatever

# Remote “Anchor Off”

**With second line ashore direct from boat - dinghies  
Only in non-tidal waters**

Anchor  
Warp



# Remote “Anchor Off”

**With second line ashore direct from boat - dinghies**  
**Only in non-tidal waters**

Anchor  
Warp



# Remote “Anchor Off”

**With second line ashore direct from boat - dinghies  
Only in non-tidal waters**

Anchor  
Warp



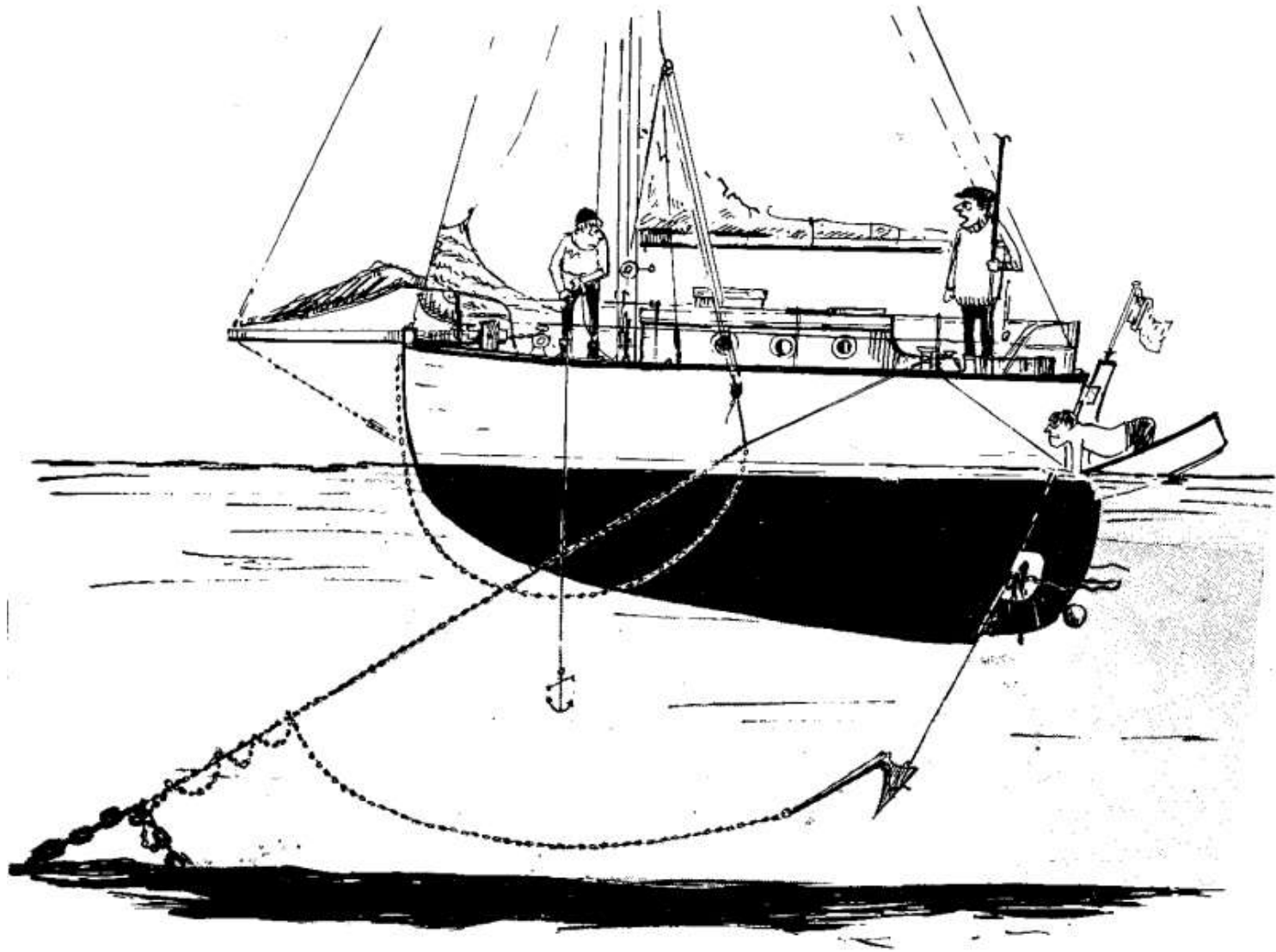
# Remote “Anchor Off”

With second line ashore - dinghies

Buoy it, to make it visible, if other boats around







Peyton

*'We'll just stop a minute and work out exactly what's  
happening below.'*

# Choosing An Anchorage

## Factors to consider:

- Depth
- Type of bottom
  - Marked on chart
- Shelter
- Swinging room
- Duration of stay / forecast / ability to haul out to sea if necessary

# Choosing An Anchorage

## Factors to consider:

- **Type of bottom**
  - **Marked on chart**
  - **Imray abbreviations:** →
  - **Admiralty ones are similar**
  - **See “chart” 5011**

## Seabed characteristics

S Sand  
M Mud  
Oz Ooze  
Cy Clay

Potentially good holding

G Gravel  
Co Coral  
Sn Shingle  
P Pebbles  
St Stones  
R Rock  
Ck Chalk

Poor holding, in varying degrees

Sh Shells  
Wd Weed  
Qz Quartz

Poor holding

---

f fine  
m medium  
c coarse  
h hard  
sm small  
so soft  
bk broken

# ANCHORING

- **Refer to the paper sent prior to course.**
- **(Condensed version in Spring 2019 *Mainsail*)**

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