Rigging Lark 2252

Introduction

This booklet was inspired by reading the Wayfarer guide to rigging and racing. The wayfarer guide includes a lot more information than just rigging and is worth a read even if you sail a different class. This guide describes how Lark 2252 is rigged and will hopefully help those new to Lark sailing that has an older boat. It is not the definitive way to rig and some things might change as I gain more experience sailing this exciting and rewarding class. If you have one of the Rondar Larks or are thinking about setting up the control lines and rigging from scratch then consult the rigging guide written by Simon Cox and available from the class website.

Lark 2252 was built by Parkers in 1989. Although it is a MK2 much of the rigging is similar to the MK1s.

I believe in keeping things as simple as possible and only having adjustable controls you actually adjust on the water. However, if you need to adjust controls they need to be easy to use and fall to hand. While the latest shiny gadgets and brand new sails may look nice, if your basic boat handling and tactics are poor you'll still sail slowly whatever you spend. After all, what good are those £800 new sails if you're always in someone's dirty wind!

Finally, join the class association, everyone is very friendly and helpful and you'll be doing your bit to keep the class alive.

Garry Packer 10th July 2004.

Hull

Make sure your hull is smooth; fill the worst imperfections with gel coat filler or epoxy and microballons and sand wet with 600 – 1200 paper. Adding a small amount of washing-up liquid to the water helps with the sanding.

Keep the hull clean. I sail on a reservoir and over time a sticky residue builds up on the hull. I use a proprietary cleaner every few weeks and then polish the hull. If your hull is in a state you can try T-cutting, washing and then polishing.

I put a smear of Vaseline around the hatch cover and drain plug threads to help seal them and make them easier to remove.

Transom flaps have been discussed widely on the class discussion forum. If your transom flaps are in the right place and your boat trim is correct, water never comes in when sailing even when open. They are there to prevent the odd wave entering, to stop an influx of water when you launch or fit the rudder. Most boats just tape them up or tape (top edge only) an acetate sheet over them. 2252 has a more sophisticated arrangement made from an old number plate, and secured with a hinge made from an ice cream tub.

Fittings

I tape nearly everything. Pay special attention to cleavis pins and rings: firstly to stop them coming undone and secondly to protect your spinnaker (and yourself) from being ripped. Cut all bolts so they are just long enough and either use nyloc nuts or a bit of sealant on the threads to stop them coming undone. I also tape the bitter end of knots which I don't undo regularly. Put anti-corrosive gel on all stainless fittings going into alloy spars.

I pay particular attention to tape anything sharp around the chute and then spray with a silicon lubricant (buy your silicon from a builders merchants its cheaper than a chandler). Rubbing candle wax around the chute helps to reduce friction and is cheaper alternative to silicon lubricant. Candle wax can also be rubbed in the main luff and foot grooves (run the end of a candle up the slots). While talking about lubrication I also regularly spray the spinnaker with silicone this not only helps the nylon to shed water but also makes the spinnaker easier to retrieve by reducing the friction.

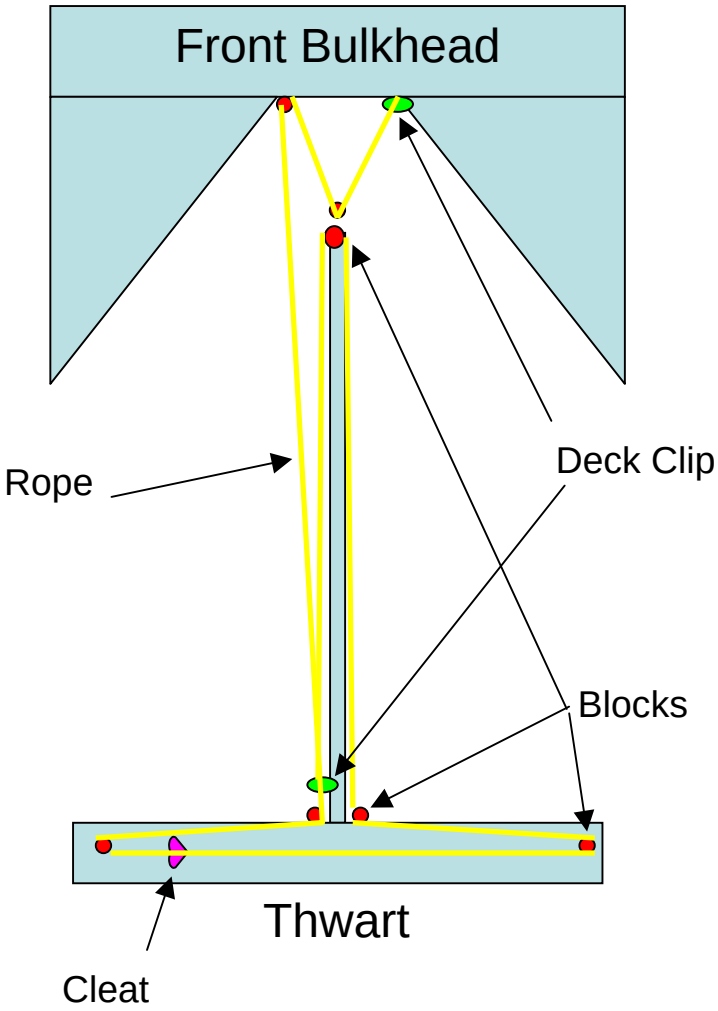
Toe straps

These are set up separately for helm and crew and tension with elastic so your feet naturally fall under them. If they're not separate then it's likely that someone will miss them if you sit out together (and that means a swim).

Centreboard

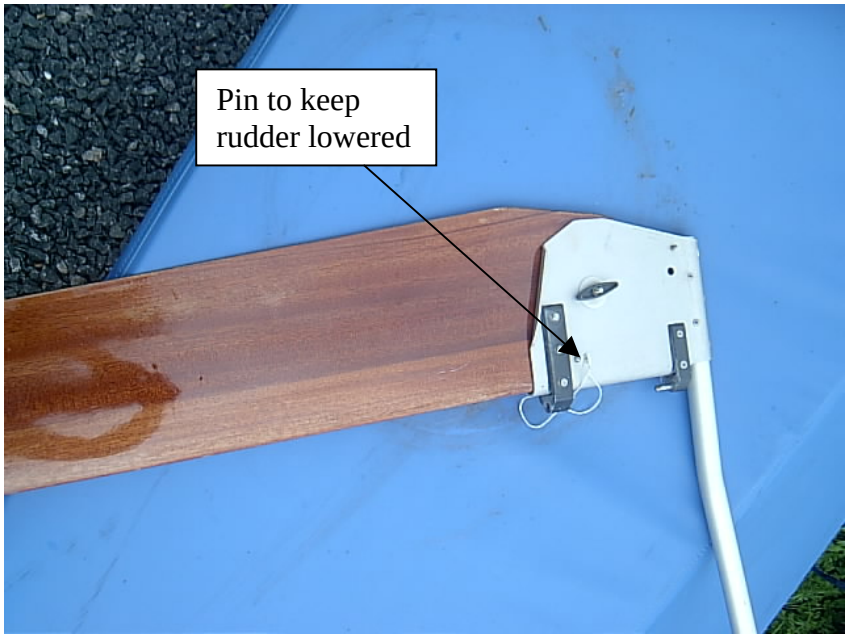
Make sure this is smooth and straight. DO NOT FILE THE TRAILING EDGE TO A SHARP V IT WILL REMOVE YOUR FINGERS WHEN TRYING TO RIGHT THE BOAT. Bent plates, I understand, can be straightened in a hydraulic press if you have an engineering company near. Simon Cox (see class website) can also supply you with a new board at a very reasonable cost (or so I hear). I have a short length of 4mm polyester braid with a 60mm snap hook on the end that attaches to the shackle on the top of the plate. It is just long enough to allow the board to come $^{7}/_{8}$ of the way up, in the event of a full inversion it stops the plate falling completely back into the boat. I have seen a really good system that uses 6mm elastic to keep the board down, tied at the thwart then passed round the front of the board and back to the other side of the thwart. It is then tensioned to pull the board back.

The centreboard is pulled up and down using a continuous loop of 6mm 16 plait prestretched polyester.


Front Bulkhead
Rope
Deck Clip
Blocks
Thwart
Cleat

Rudder

The rudder should be smooth and held fixed vertically. I find that shock cord and rope don’t make a satisfactory job and pin the rudder down using the end of a plastic knitting needle.



Make sure the tiller is a tight fit in the rudder head. I use a 107cm carbon fibre extension as I like the more positive feel and larger diameter. I had real problems with my aluminium tiller as it kept sliding out of my hand because only the very end had any grip. 107cm is about the maximum you can get away with without giving your crew a black eye and it is just long enough to allow them to steer if necessary.

Gudgen and pintle should be through bolted, with a spreader plate or large washers on the inside The rudder is held in place in if the boat capsizes with a retaining clip, make sure this is working. I have a length of elastic I hook round the tiller this keeps it centred and adds some extra feel to it.

Shrouds

Connected to the hull with a D ring and Holt fine tune stay adjuster. As mentioned above taped and I also tape a spare clevis pin and ring into each one. Check the mast is straight by measuring from the top to either side of the transom (I use the back bolt of the rear spinnaker blocks)

Forestay

I have removed the forestay.

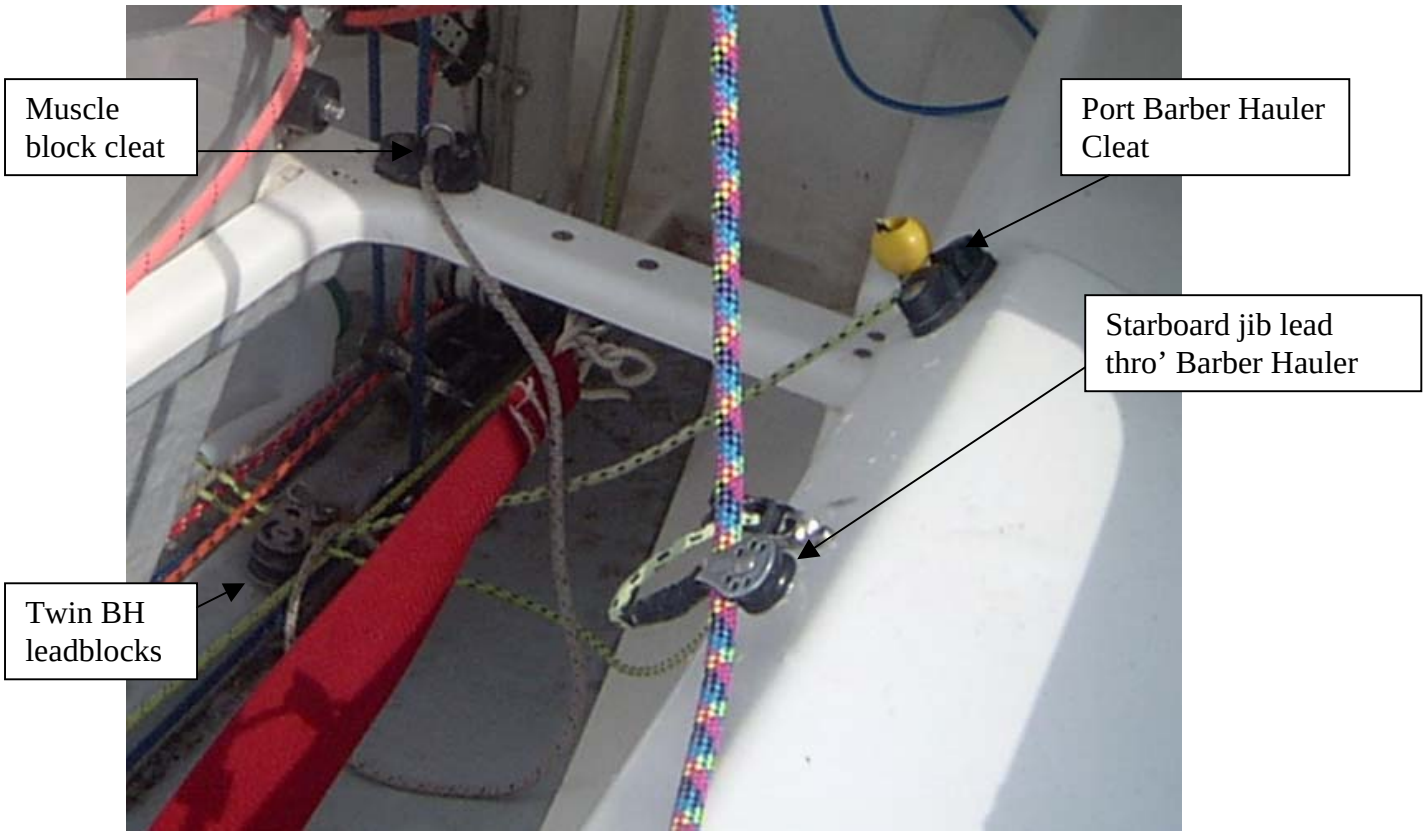
Jib

The tack of the jib luff wire is attached to an RWO upper swivel and then the tack is tied to this as well to set up the correct luff tension. I have been toying with the idea of a jib cunningham but have not yet convinced myself I would use it enough. The halyard goes through the mast exiting just above the goose neck. Rig tension is applied using an RWO muscle block. On some Larks rig tension is applied to the

bottom of the luff wire with a powerful block arrangement either under the foredeck or along the centreboard case.

I keep the halyard tidy by hanging it on a plastic hook held on the side of the lower mast with elastic.

The jib sheet lead is controlled by a barber hauler arrangement, with a double block on the keel in front of the centreboard case. The arrangement can be seen in the picture below. Note also the cleat for the muscle block just in front of the centreboard on the support.



The sheet is then lead aft through a turning block and cam cleat.

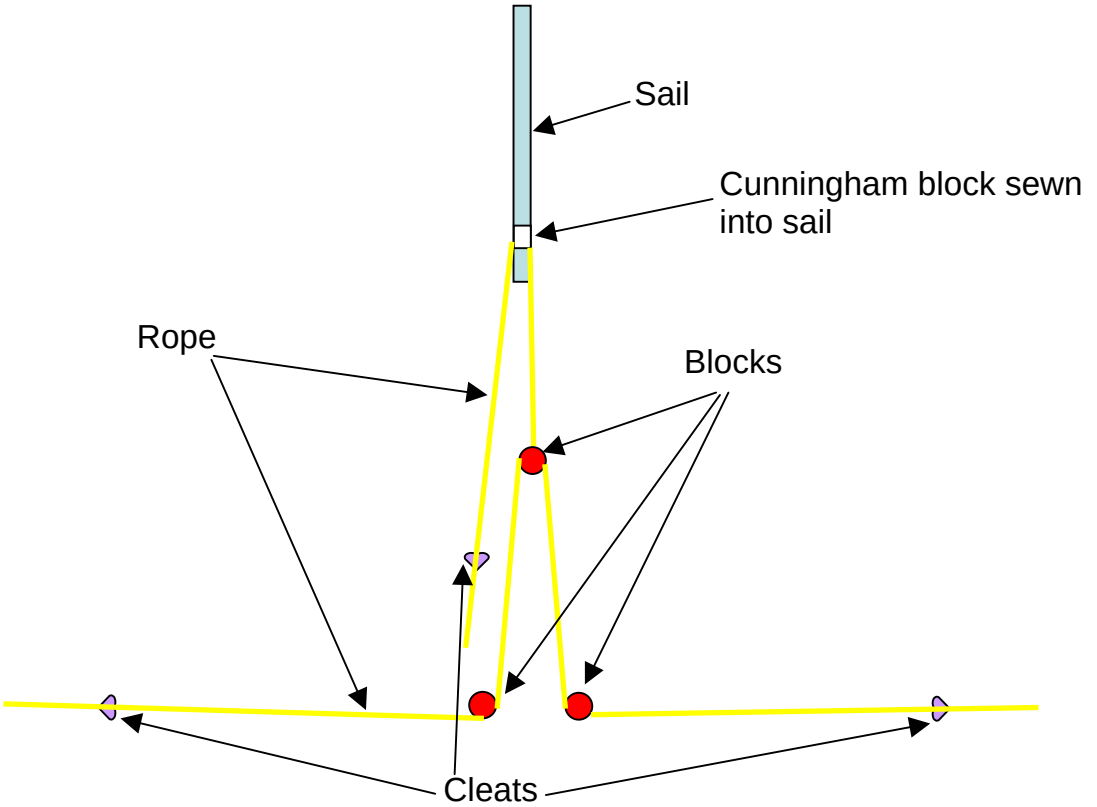
I use 5.2 metres of 8mm 16 plait anti twist rope with the centre tied to the sail using a cow hitch. Close hauled, easing the barber hauler moves the sheet lead outboard and aft opening the slot and flattening the bottom of the sail. To close the slot and tighten the leech the barber hauler is tightened. I have 3 tell-tails equally spaced up the jib about a third of the way back from the luff. I generally adjust so that the top tell-tail is just breaking first. Off the wind we let the barber hauler right off (if we remember).

Main

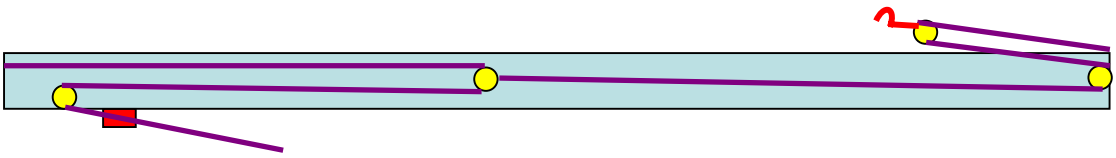
The main halyard exits at the bottom of the mast on the starboard side and has a wire loop that hooks on a rack. As with the jib we tidy the halyard by looping on a hook. Although the boom has a pin for the tack I don't use it (although most of these pictures are with the pin being used), preferring to tie the tack to the mast and tension the luff with the cunningham.

The cunningham consists of 4mm Excel Pro from a ring on the side of the muscle block through the block sewed into the luff of the sail and down to a block. From here it is lead of each side with some 8 plait to within easy reach of the helmsman. I shall be changing this arrangement over the coming year so that the fixed end of the system is cleated near the base of the mast and changing the rope to all Excel Pro or Racing.

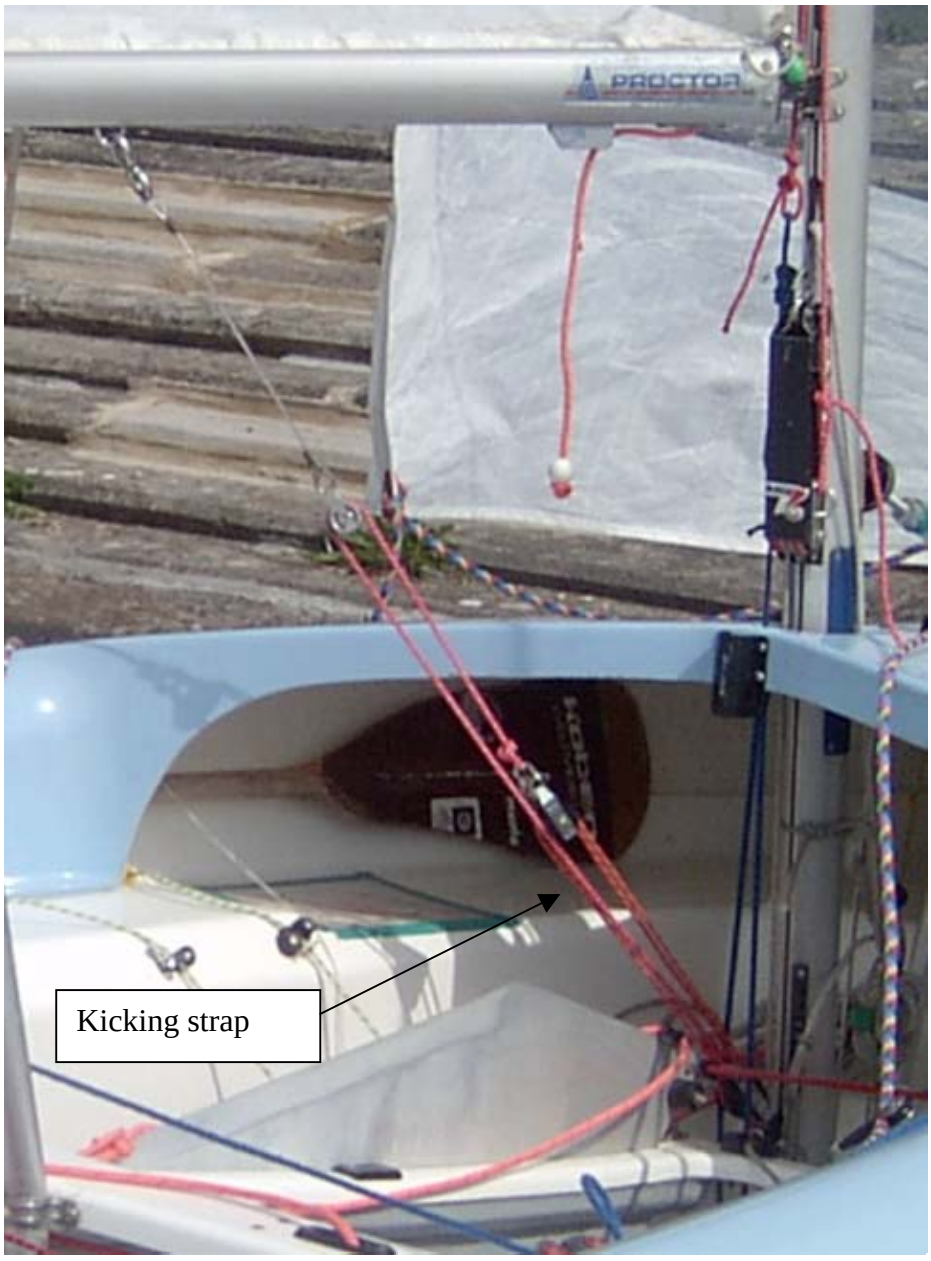
This will give a coarse adjustment operated by the crew and a finer adjustment to the Helm, thus allowing a greater range of travel. We use the cunningham a lot, putting it on as soon as we start to overpower upwind and off for reaching and running.



The outhaul consists of a 4:1 purchase with the cleat on the boom. Generally we pull the clew out to nearly the black band and leave it there for the whole race.

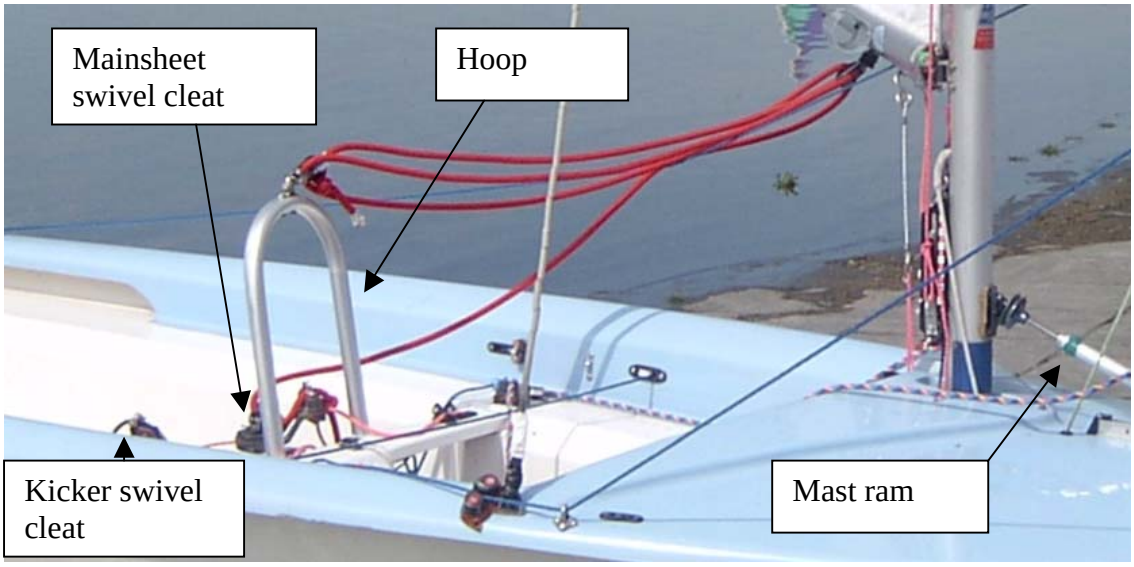


Kicker, in my view, one of the most important controls in the boat. W e have a 16:1 arrangement consisting of two double blocks a single 2:1 cascade and a final 2:1 arrangement down the side of the centreboard case. The whole lot is led back to a swivel block and cam cleat at the back of the centreboard case. This seems a standard position for the swivel on the Mk2 Larks. I don't think it's the best as it's easy to accidentally release it with your foot. Triple blocks are on my wish list to increase the



kicker to at least 24:1.

The main comes off a hoop. It consists of 5.5 metres of 12mm 16 plait polyester (this has now been changed to 8mm polyester). I tie a knot so when fully released the boom stops about an inch short of the shroud. I have a tell-tail positioned just above each batten on the leech and an extra one about a quarter of the way up the sail a third of the way in from the luff.



Mast bend is controlled by the rig tension, spreader settings and ram. The ram is fitted to the foredeck and extended using a screw thread. I have seen rams that pivot and are operated by blocks under the foredeck and also a simple piece of rope attached to a cleat by the mast step, I haven't seen chocks used but there is no reason why they wouldn't work. It is important that a strut is fitted under the foredeck down to the keel to support the loads if a ram is fitted. I normally set the mast up for no prebend until we are becoming overpowered. I then wind in the ram using it in conjunction with the kicker and cunningham to depower the rig and control sail shape. The lower mast position is graduated to marks on the deck so I know when the mast is straight and when 10, 20 and 30mm of prebend are applied

Spinnaker

The spinnaker set up is quite complex if you're not familiar with rigging a third sail. Starting with the pole this has a pole ramp in the middle and a continuous line attaching the release pin at each end.

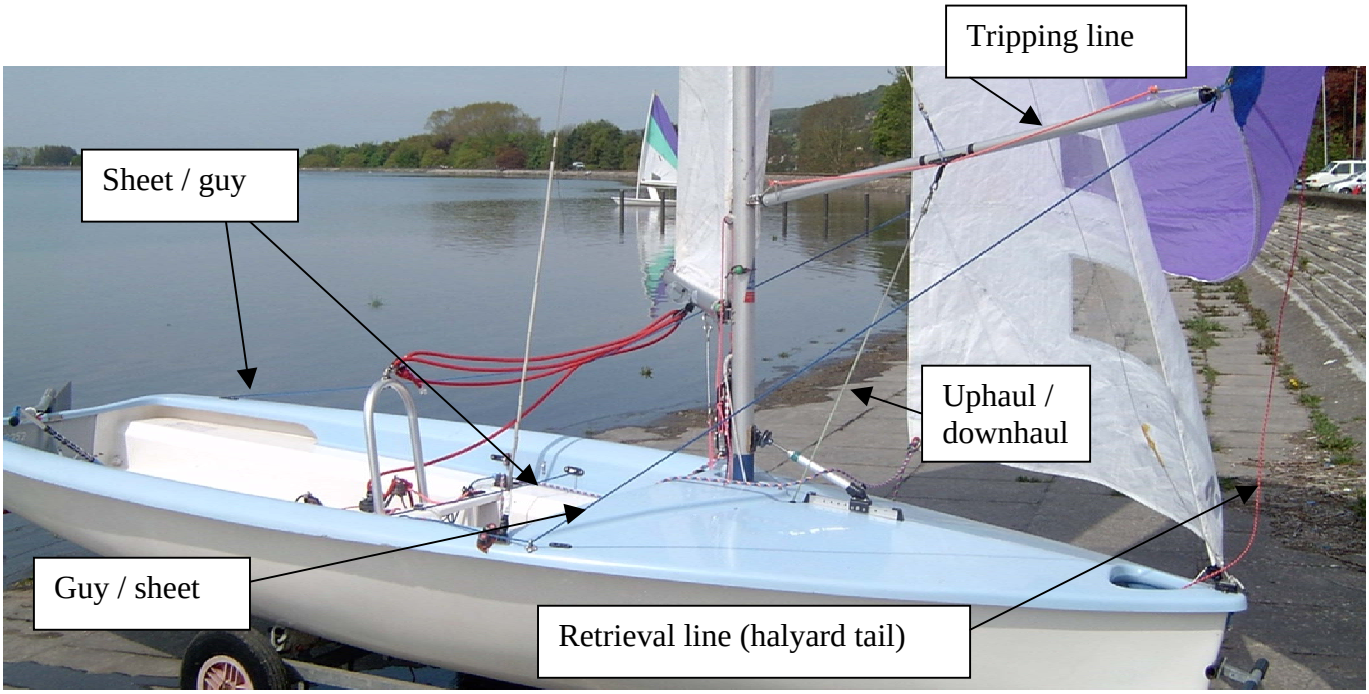

Uphaul/downhaul pole arrangement


Inboard stowage of spinnaker pole

The pole is threaded through a loop in the downhaul/uphaul and the release line tied outside. Thus, in the event of a capsize it is not possible to loose the pole. When stowed one pole end sits in some drainpipe bolted to the side of the boom and the other end is raised by the uphaul to keep it clear.

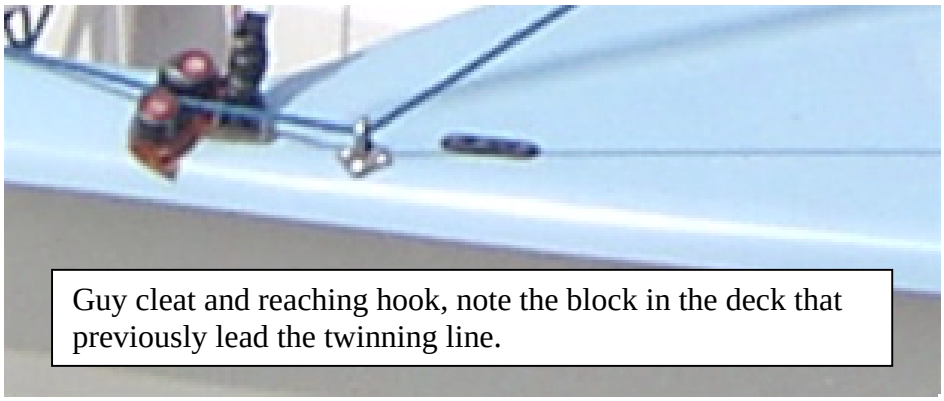
This is not my preferred arrangement but how the boat came. If starting from scratch I would use a loop large enough to clip the inboard end to. With the current arrangement if the mast end of the pole is not raised high enough the pole slips back and can give the helm a nasty bash on the head when tacking or gibing.

The uphaul goes through a block on the mast exiting from the centre block at the mast base, then along the port side of the centreboard case where it is cleated. The downhaul passes through a grommet on the deck and is attached to some elastic on the port side.



The halyard is a continuous loop from the head of the sail, down the mast and along the port side to a cleat. Then across to the starboard side, under the side deck and out of the spinnaker chute to be attached to the retrieval point on the sail. I have a flexible piece of plastic trim with a wire hook taped to it to make rethreading the halyard easier.

Spinnaker sheets go from the corner of the sail to the rear block along the inside of the deck emerging near the thwart. It then crosses the boat and does the reverse journey on the other side before connecting to the other corner of the sail. Total length is around 14.5 metres of 4mm polyester. If twinning lines are fitted these should act like barber-haulers on the sheet in the region of the shroud. On 2252 these have been removed and replaced by reaching hooks. Firstly, as the lead of the twinning line wasn't satisfactory. Secondly they are simpler for my crew to understand. They will be replaced with a new twinning line in time (now my crew is more experienced I have gone back to twinning lines). Just behind the shroud are cam cleats used to cleat the guy (windward spinnaker sheet when it is in the reaching hook). The sheets are



Guy cleat and reaching hook, note the block in the deck that previously lead the twinning line.

marked with red cotton so the pole can be pre-cleated just off the forestay.

I also had a sock made up for the spinnaker chute this keeps the spinnaker tidy when stowed.

References and links

Some books and websites I have found interesting. I was brought up on Richard Creagh-Osborne's "This is Racing" and it remains a favourite.

Lark Class Association www.larkclass.org

Yachts and Yachting www.yachtsandyachting.com

Dinghy Sailing Magazine www.seascapemedia.co.uk

Royal Yachting Association www.rya.org.uk

Royal Maas YC (Wayfarer Handbook) www.de-maas.nl/eng/wayfarer_racing_document.htm

Bond, B. (1980) The Handbook of Sailing, Pelham

Creagh-Osborne, R. (1977) This is Racing, Sail Publications

Creagh-Osborne, R. (1977) This is sailing, Sail Publications

Hemmings, A (1994) Crewing to Win, Fernhurst

Holford, I. (1979) The Yachtsman's Weather Guide, Ward Lock
Perry, D. (2000) Winning in One Designs US Sailing Association

RYA, (2002) Advanced sailing G12/03, RYA

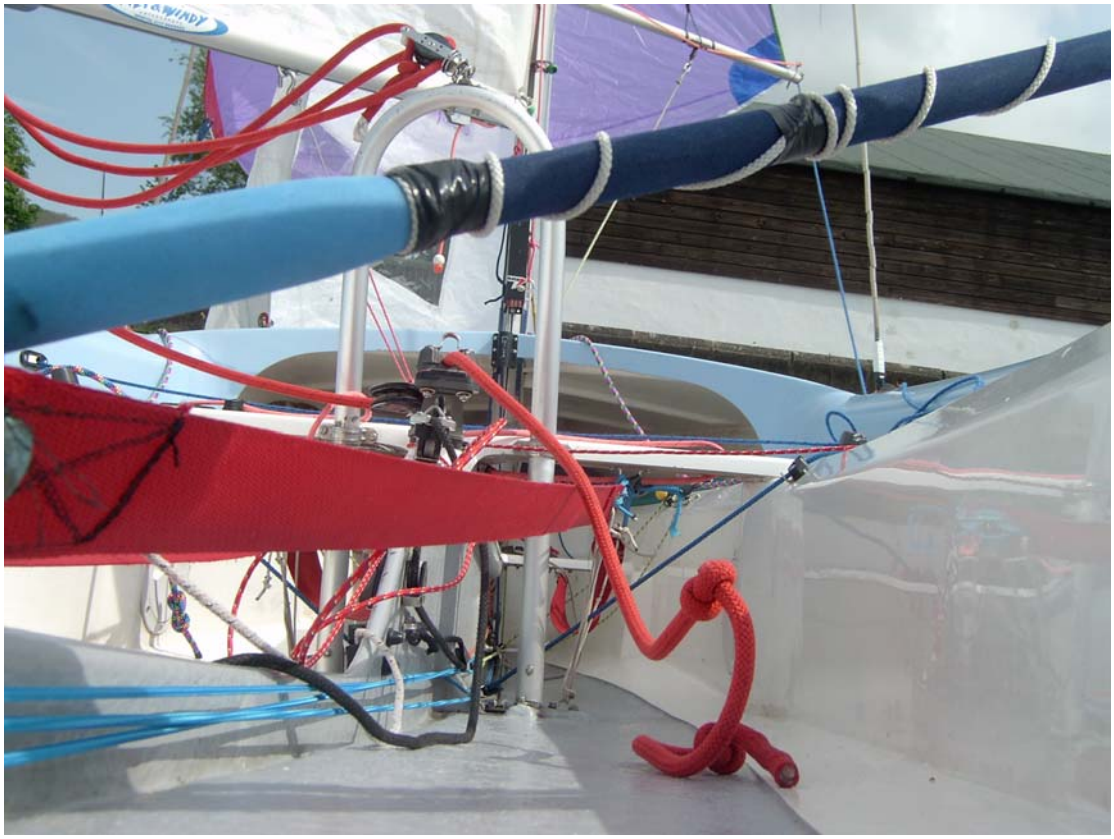
Saltonstall, J. (19) The RYA Book of Race Training, Adlard

Smith, L. (1985) Tuning Your Dinghy, Fernhurst

Smith, L. & Pinnel, I. (1994) Helming to Win, Fernhurst

Twiname, E. & Willis, B. (2001) The Rules Book 2001 – 2004, Adlard

Note: the pictures still has the old tiller extension fitted.




LARK
2252