

## Secrets of a fast Lark

Many articles have been written on how fit out a Lark over the years, and there is one overwhelming message - Keep It Simple, Stupid! How true. This says a lot about Merlin Rocket sailors who are either Einstein reborn or just plain stupid. For most Lark sailors, many of which have a University education, keeping it simple is definitely the key to being quick around the course.

### Planning

Even before you take delivery of your shiny new (or old) rocket ship you need to think about the following, whilst remembering the KISS principal.

- 1.) What do we *really* need?
- 2.) How can we make it better?
- 3.) What is the best part for the job?

In the process of planning don't forget that the Lark is a two-person boat, the crew needs to be involved with every stage of the process. Use a pencil and paper and plan every control and control line in the boat until you're happy that everything is "right" and will be as efficient as possible.

### What do you *really* need?

There are plenty of controls available to control the rig, foils or sails but are they *really* all needed? Here are the most common controls that you will see on a Lark.

- |                        |                                  |
|------------------------|----------------------------------|
| 1.) Rig Tension        | 10.) Spinnaker halyard           |
| 2.) Kicking strap      | 11.) Spinnaker Pole uphaul       |
| 3.) Jib sheets         | 12.) Spinnaker Pole downhaul     |
| 4.) Mainsheet          | 13.) Twinning Lines              |
| 5.) Spinnaker Sheets   | 14.) Adjustable Shrouds          |
| 6.) Cunningham         | 15.) Adjustable Mainsheet bridle |
| 7.) Outhaul            | 16.) Jib Cunningham              |
| 8.) Mast Ram           | 17.) Adjustable Toe straps       |
| 9.) Centreboard uphaul |                                  |

For 99% of the Lark fleet the only controls that you will ever need are listed from 1-12. These are all key controls to making a Lark go fast.

When considering a new control - think first. When you're sailing around the course do you or would you ever adjust the control? If the answer is no, then you probably don't need the control. Perhaps you do need the control, but it doesn't need to be altered during racing.

### Important questions

Once you've decided what controls you need, decide how you're going to implement them. Ask yourselves.

#### Who is going to control them?

If it's just the helm, the control line needs to be led aft to the aft of the centreboard case capping or to the main thwart.

If it's just the crew, the control line needs to lead to the centreboard capping, the foredeck or the side deck.

If it's both then the thwart or middle of the centreboard case capping.

**How much loading will be on them?**

Decide if the control will be a high-load or low-load control. For example, the kicker will be a high-load control whereas the barber haulers will be relatively low-load.

**How much purchase will be required?**

The loading on each control will determine how much purchase is required. But remember if fine adjustments are required it will be worth having slightly more purchase than necessary, e.g. Barber Haulers.

**What size or type of rope will be required?**

Make sure that all ropes are strong enough for the maximum loading of the application. Ensure that they will move freely through the blocks and that they don't twist. Two tips here, use Rooster Rope for main and jib sheets and DON'T use mountaineering ropes - they stretch!

**Will there be enough travel?**

By travel I mean length that a control can move. For example, if you need to pull on more kicker but it goes block-to-block, you need more travel.

**Is the fixing secure?**

Make sure every fitting is securely attached to the boat. That means bolt everything. If you can't bolt it make sure it's shackled to something that is! Sod's Law says that if it can pull off it will, normally when you're winning!

**Will the control work at maximum efficiency 100% of the time?**

Eliminate all friction, there is always a way to ensure all controls are working at maximum efficiency. Think about what the rig is doing upwind and down, where will the crew sit, where will the controls be? This is where the planning comes in.

**What are the best fittings for the job?**

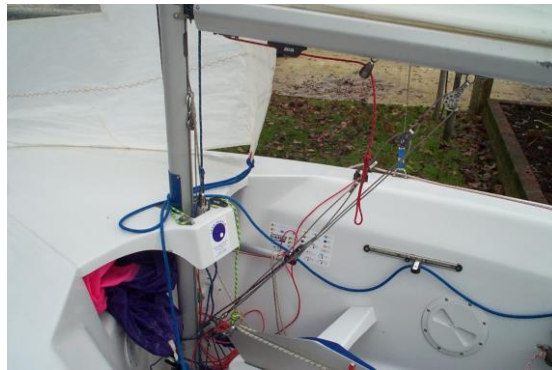
Don't buy all your fittings from one manufacturer. Look at all the options and buy the best for the job. This doesn't mean the boat is going to be expensive but it will be more efficient and last longer. An example of this is on 2462 we used Ronstan C-Cleats throughout because they are excellent, however, we had to replace the spinnaker halyard cleat because the rope wore through the base cutting the cleat clean in half! The replacement was the slightly more expensive Harken version because it has metal inserts in the base.

## Some ideas for controls

### Rig tension control

Consider this. The Lark is shorter than a 420, has approximately the same upwind sail area, is narrower and doesn't have a trapeze. We get over powered really easily! Rig tension is critical on most boats and is no exception on the Lark.

If you've ever read the articles in Lark news by the various recent National Champions, Dougal Scott, John Brickwood, Steve Bolland and others they all say that rig tension is key to control power and pointing ability.

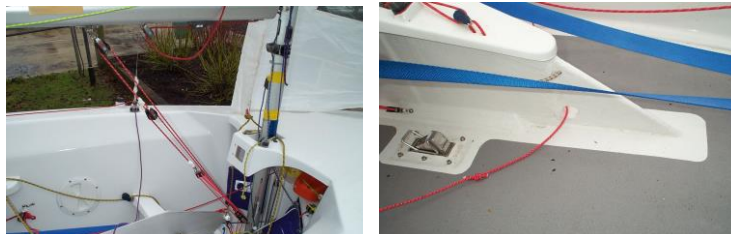


Top (both) - Lark 2462 has a stuff luff jib arrangement with the rig tension under the foredeck. This helps reduce compression loadings in the mast.

Above - A Conventional rig tension system on Chris Ellis's Lark 2469. The purchase system is along the side of the centreboard case and adjustable by the helm only.

## Kicking Strap

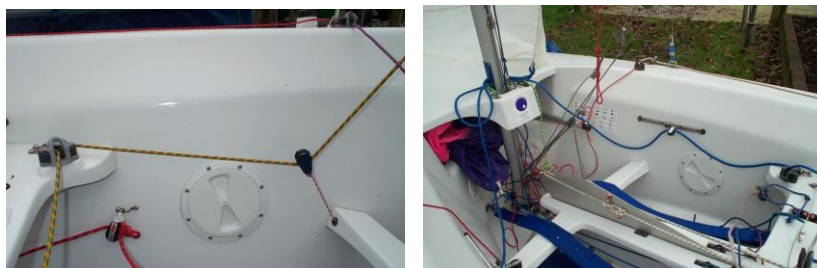
Possibly the most important control on the boat, don't underestimate the power of your kicking strap. In a windy race an 8:1 purchase is definitely not enough, 12:1 or 16:1 is ideal in a Lark, any more is unnecessary. If you have too much purchase you will end up having a lot of rope around your feet when you're block-to-block on a windy beat.



Top Left - Multi-purchase kicker  
Top Right - The kicker control lines are joined and pass through a hole in the centreboard case. This helps keep the boat tidy.  
Above - Kicker control line leads

## Main, Jib and Spinnaker Sheets

These are obvious, but are the cleats in the right place? Can you adjust the jib whilst the crew is using the helm's toe straps on a force 10 reach? Make sure all your controls are efficient - right down to selecting the right diameter rope for the job.



Top left -Continuous barber hauler arrangement on 2462, with single adjustment control line on centreboard case.  
Top right - Lark 2469 uses very simple jib tracks in place of barber haulers, the tracks could be shorter.  
Above - Standard positions for Jib and Spinnaker sheets on the new Rondar Lark. Note the fairlead on the jib cleats that help with trimming the jib from unusual positions!

## Cunningham

Another power control, pull on it and it opens the leach on the mainsail. A simple clam cleat on the side of the mast is usually sufficient for this control.

## Outhaul

The outhaul is a power control, especially useful for those lardy boys who require a bit more power going downwind. There can be quite a lot of friction on the outhaul so don't use too much purchase as it'll be difficult to ease off. A 4:1 purchase on the outhaul is typically about right.

## Mast Ram

This is a very powerful control especially when used in conjunction with the rig tension. Too much of either will leave you struggling to control the boat or massively underpowered. The loadings on the mast ram are amazingly high, especially when a lot of kicker is used. Make sure that the fittings are strong enough for the job. Clam cleats are not suitable for this control.



Above - Simple mast ram arrangement is all that is needed, but make sure the block and cleat are man enough for the job.

## Centreboard Uphaul

Although not the most useful control on the boat it is none the less essential. On some boats you can use a friction pad to keep the board in place, but not the Lark. A simple 2:1 system led aft so the helm and crew can both adjust this is ideal.

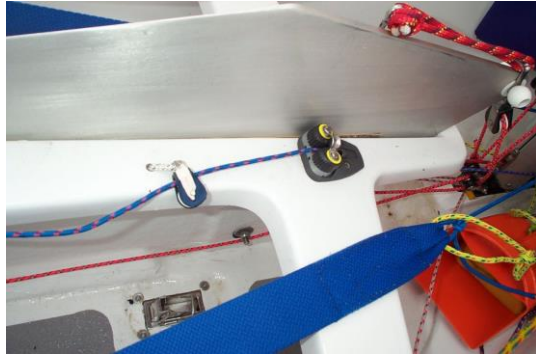
## Spinnaker halyard

It goes up, but does it come down? This is a vital control, make sure it is friction free and doesn't fail or you will probably go swimming. Some boats including Paul Gardner's Lark 2458 even use a pump halyard to provide a quick one-handed spinnaker hoist.

## Spinnaker Pole uphaul/downhaul

The pole height controls the shape of the spinnaker, which makes a huge difference to the speed of the boat. There is a kaleidoscope of variations, choose which is right for you *and* your crew.

The two most popular options are a simple hook arrangement or a boom hung ramp system. Class rules also allow for a higher mast fitting for the spinnaker pole which essentially projects the pole further outboard.



Top left - Pole down haul on 2462 is very tidy and out-of-the-way.

Top right - The pole downhaul is easily adjustable from the centreboard case.

Above left - Nigel Hufton's Lark 2470 has Velcro on the Spinnaker pole and inside corner of the buoyancy take to hold the pole in place.

Above right - The boom-stowed spinnaker pole ramp system on Lark 2462 has the option of a higher fitting on the mast to project the pole out further.

### Twinning Lines

These are very nice, but not essential. They replace the spinnaker reaching hooks and stop the crew from fumbling around at the gybe mark when they have better things to be doing, like pushing the pole out!



Above - The very neat twinning line leads on 2462, there is no need to drill any additional holes in the foredeck.

### Adjustable Shrouds

These used to be trendy on some old Larks, but are massive overkill and especially difficult to rig on a new Rondar Lark. Mast rake and tension are happily controlled by the rig tension.

## Adjustable Mainsheet bridle

Apparently, John Brickwood swears by these, for light winds you can easily bring the boom to the centreline and twist the mainsail. You can also achieve the same effect with a split-bridle mainsheet, which is simpler but also has its drawbacks.



Top Left - Lark 2462 now sports a very clever Herzog adjustable mainsheet bridle first seen on Richard Dowsett's Lark 2331.  
Top right - Clever but complicated bridle adjustment on Lark 2365 - but it only adjusts the height.  
Above - Nigel Hufton's Lark 2470 sports a very clever self-tacking mainsheet bridle - nice!

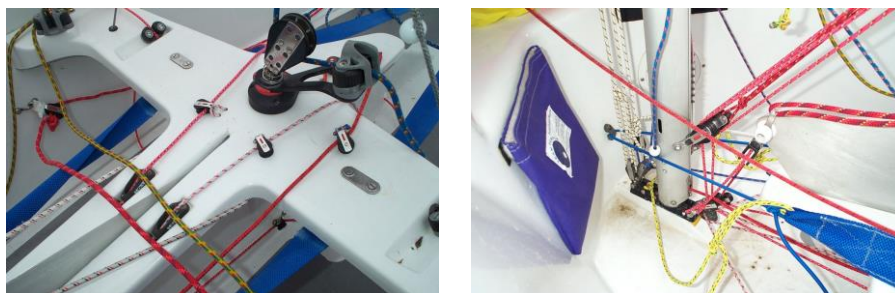
## Jib Cunningham

The jib Cunningham pulls the draft of the jib forward when pulled on. This is another control which just isn't needed unless you're having a bad race and need to blame something!

## Adjustable toe straps

These are only really needed if you change crews a lot. Otherwise they are just an additional, unnecessary expense and complication. They could be led back to the helm if the crew doesn't hike hard enough!

## Other ideas



Top left - Keep your controls simple and tidy. Use elastic to hold your centreboard down.  
Top right - Mast steps are a strong and secure place to attach fittings. This also avoids having to drill holes in the buoyancy tanks. Note the stowage bags.

## Tips and Tricks for fitting out

- Never drill a hole without first thinking about what you're doing! Do you really know what you're drilling into? Can you physically put a nut on a bolt where you're drilling the hole? Will there be enough room for the nut?
- Bolt every thing. If you can't bolt it make sure it's securely fastened to something that is.
- Use Sikaflex under all fittings to seal all holes, especially if they are going into the buoyancy tanks. Sikaflex is heavier duty than bathroom sealant and helps glue the fitting in place.
- For a new Rondar Lark have a small-armed helper to hand for fitting the rudder fittings to the transom - the hole is very small! Once again use Sikaflex and get it right first time.
- Downsize and trim ropes to the correct length where possible. Wet rope is an unnecessary weight penalty but don't downsize to the extent that you can't grip the rope!
- Go for maximum correctors, but not at the expense of gear breakages. Note that correctors have to be fastened under the thwart *not* anywhere else in the boat.
- There's nearly always a neater way of doing something. If necessary perform surgery on a standard fitting to make it do what you want - see picture of twinning line leads on Lark 2462.
- Rope colours really do matter! Try and have a different colour rope for every control line or at least don't have two controls the same colour near each other.
- Use Rooster rope for Main (7.5mm) and Jib Sheets (5.5mm) this rope is excellent and doesn't twist or kink at inopportune moments!
- Herzog rope is very expensive but is a great replacement for wire halyards, particularly the main halyard.
- Proctor mast steps are significantly stronger than other brands, this is especially important if you're attaching fittings to one.
- A low friction padding, such as Jap Tape, is the best way of eliminating any slop from the centreboard or even protecting the boom from the shrouds.
- Use Pro-grip on the sides of floating blocks, such as the barber haulers, to prevent the blocks damaging the gel coat.
- When you take delivery of your new ship from Rondar remember to ask for a small pot of gel coat and hardener to fill accidental holes and for minor repairs.
- If you're not sure ask (use the Lark website discussion forum - [www.larkclass.org](http://www.larkclass.org)). There are plenty of Lark sailors ready to divulge gems of information!

## And finally...

Although this article was written essentially for the new Rondar MkII boats it is equally applicable to all Larks from the very first Baker's to Parker MkII's.

After all that, there is only so much you can do to make your boat the fastest in the fleet. It is far more important to get you and your crew up-to-speed, so time down the gym(!) and time on-the-water practising will have a far greater effect on results than any go faster goodie.

Simon Cox  
Lark 2462, "Mr. Bigglesworth"  
January 2002