

Leading Lines Aft

Why?

Most sailing is short handed, most is undertaken by older sailors and / or couples with children. The safest option is to reduce time on deck and operate control lines from the safety of the cockpit, especially when reefing.

Which control lines should I consider leading aft?

- Single line reefing lines
- Slab reefing lines
- Main halyard
- Topping lift
- Kicking strap
- Genoa Halyard
- Spinnaker Halyard
- Towable Genoa car lines

How do I position and fit the components?

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How do I position and fit the components?

Mast base

Which block should I fit?

Modern yachts tend to have swivel posts fitted at the mast base onto which double tang blocks can be mounted. If the mast base is fitted with eye bolt attachment points or a rail, we recommend swivel blocks to take up the line of least resistance.

We always recommend the use of plain bearing blocks for high static loads, ball bearing blocks tend to distort the internal balls if loaded up in one position over time resulting in grinding and uneven spin when in use.

Do not use double or triple blocks at the mast base as these tend to load unevenly when two different loads are applied, resulting in undue wear to the sheave side plates. If space is at a premium, consider fiddle blocks with in line sheaves for better load distribution.

Barton Stand Up blocks:

Stand up blocks are designed for line deflection at deck level and are ideal for the mast base where there is no other means of block attachment. Barton has a full range from Size 1 through to Size 7 for control lines on yachts up to 15m. These blocks both swivel and rotate to take up the line of least resistance, thus ensuring smooth running.

Part# 81 550 Barton Mast Base Organiser - fitting instructions:

This unit is designed for use on yachts up to 11m that do not have mast base sheaves, eye bolts or swivel posts on which to attach mast base blocks.

The mast base organiser should be located close to the foot of the mast. You may have to unscrew or peel back any coachroof headlining inside to see what space you have available for a backing plate and bolt holes.

Once the position giving the best lead angles has been decided upon, drill three 6mm fixing holes and insert M6 countersink bolts liberally coated with a good quality sealant, these need to be long enough to go through the coachroof and a backing plate. Bolts are then secured with either a backing plate of steel or of wood with large Penny washers, finally fit M6 nyloc nuts and refit the headlining. Top tip: Wipe off any excess sealant with baby wipes, these work particularly well.



Deck Organisers

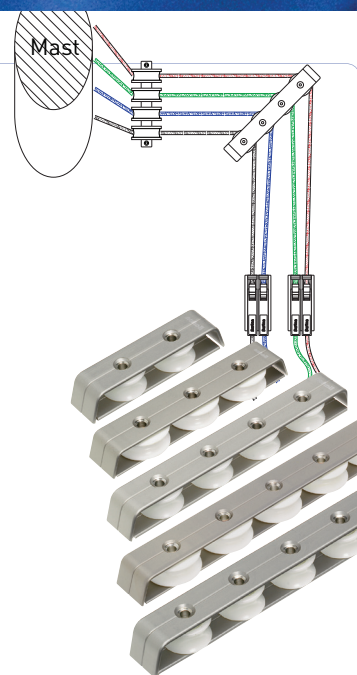
Deck Organiser fitting instructions (Size 1):

This unit deflects the control lines from the mast base blocks to line up with the clear sections of the coachroof either side of the hatch.

The organiser should be positioned so that the line angle is bisected between mast base blocks and rope clutch; the highest load lines should be positioned to the inside.

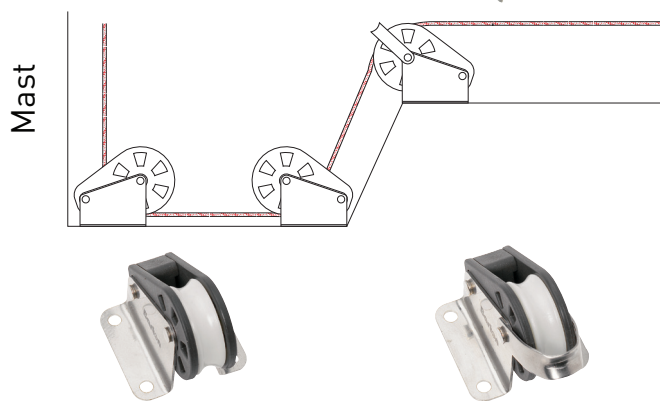
Peel back or unscrew any headlining inside and use a 6mm drill for the bolt holes. M6 countersunk machine screws are required long enough to go through the coachroof with thread to spare. Insert sealant into the bolt holes and liberally coat the bolt threads. Large stainless penny washers and M6 nyloc nuts are used to secure underneath. Organisers can be double stacked should you wish to add more control lines over time, just use longer bolts to secure, no extra drilling required.

Top tip: run dummy lines through the organiser to be sure you are not rubbing on coamings, raise up with a wooden block to clear if necessary.



Over the Top

Some cruising yachts feature a raised cabin top which hampers the clean run of control lines aft. Barton has found a way round this by introducing upright blocks as set out in the diagram to the right. (Lines can also be lead from a deck organiser). At the base of the raised section, the line is lead through an upright block, on top of the raised section an upright block with becket is attached. The becket prevents the line from being knocked off the sheave and ensures a clean run aft to the rope clutch. Upright blocks are available as singles or doubles, part numbers through Size 1 (01 150 / 01 151) to Size 4 (04 150 / 04 151).



Upright block without becket

Upright block with becket

Rope Clutches

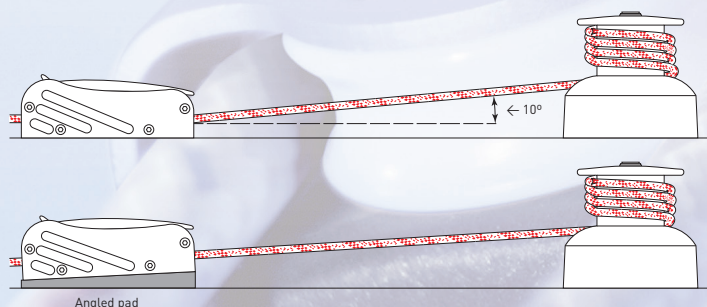
Rope clutches are designed to hold high load control lines such as halyards and reefing pennants. The true clutch mechanism allows adjustment even with the handle closed.

Rope Clutch - fitting instructions:

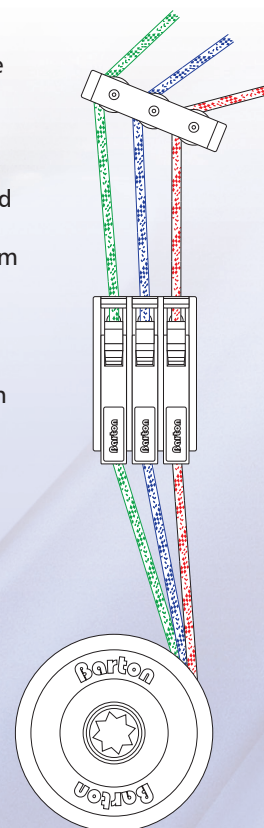
The rope clutch is fitted forward of the aft edge of the coachroof and on either side of the hatch. The clutch should be positioned at least 200mm away from the winches, so make allowances when trial positioning. Fitment of a wedge under the clutch base may be required if the line angle to the winch is greater than 10 degrees (see diagram below). You may need to peel back or unscrew headlining to access underneath the coachroof.

Once the position is decided upon, drill 6mm holes and introduce sealant. M6 countersunk machine screws are required to go through the coachroof, these are secured with large stainless penny washers and M6 nyloc nuts, introduce sealant onto the bolt threads before inserting. Leave a gap for fitment of a single clutch between the double clutch and hatch should you require an extra line for a spinnaker halyard in the future.

Top tip: centre punch holes on your pencil marks before drilling to ensure accuracy.



Ensure correct line angle to winch.





Clutch positioning on a Westerly Centaur coachroof.



Adding sealant to the clutch base.

Cleats

'K' Cams:

Rope clutches tend to be used for high load control lines such as halyards and reefing pennants, some lines do not require such a high holding capacity, this is where 'K' Cams can be used instead, namely topping lift, kicking strap, towable Genoa car line and Genoa furler line.

'K' Cams are best fitted with either a wire loop or pillar fairlead to prevent the line from accidentally being knocked out plus this gives the option of pulling on the line and cleating from the side.

Swivel bullseye

Again, for lighter loaded lines, this fitting is especially good for rotating and cleating through 180 degrees, ideal for the kicking strap on a race boat where quick and precise control is required from the side deck.

Winches

Winch fitting instructions:

The winch is located to the aft edge of the coachroof, lining up the right face of the winch drum to the clutch inner bullseye hole. M6 bolts need to be long enough to secure the unit through the coachroof and backing plate provided with the winch.



Determine the best position then mark and drill 6mm holes.



Insert sealant into the drilled holes.



And also onto the bolt threads and winch base, be careful not to coat the winch gears though. The backing plate supplied is inserted inside and bolts are secured with M6 nyloc nuts.

Top tip: Don't over tighten the winch base bolts, otherwise you will crack the plastic casing.



Rope Tidies

Part# 52 000 line tamers finish off the job by tidying control lines led aft, these are fitted to the horizontal bulkhead at the aft end of coachroof, full fitting instructions are provided in the packet.

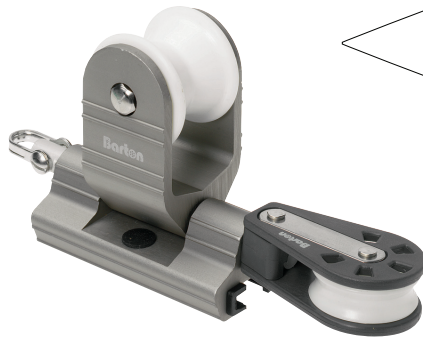


Towable Genoa Cars

Fitting 20mm, 25mm & 32mm 'T' track end fittings and towable Genoa cars:

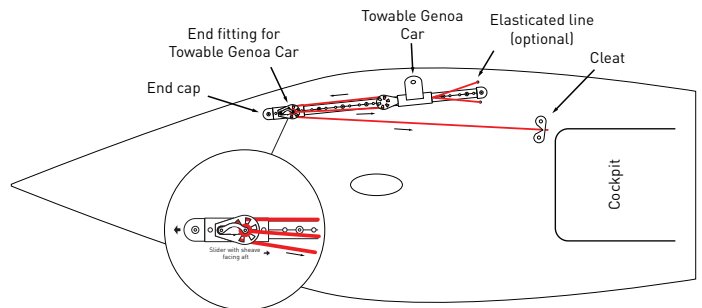


'T' Track end fitting.



'T' Track 2:1 sliding Genoa car.

Towable Genoa Car Plan



'T' Track towable car end fitting is fixed flush onto the front end of the 'T' Track already fitted, be sure to drill right through the front fixing hole, track and deck, securing with a suitable length round head or hex head M5 bolt. Use sealant on the bolt and in the hole, secure with a large stainless penny washer and M5 nyloc nut under deck. For the rearmost hole, you can drill and tap into the track section only, use a suitable length M5mm bolt to secure with a dab of Duralac on the thread to prevent corrosion.

'T' Track 2:1 towable Genoa cars simply slide onto the existing 'T' Track with the pulley facing forwards. To reeve the control line, tie off one end onto the end fitting becket (on top of the block), pass through the block on the front of the car from inside to outside, take forwards to the turning block on the end fitting then back to the cockpit side where the #70201 'K' cam is positioned for best pull angle.

Fitting instruction Pdf on website: <http://www.bartonmarine.com/pdf/tech-info-Fitting-Towable-T-Track-cars.pdf>

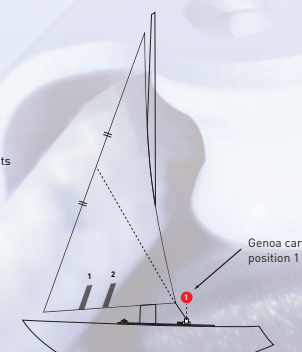
Sail setting for optimum trim

We have three sail setting diagrams to help you achieve the best performance from your Genoa when using our towable Genoa cars and Genoa furling line attachments.

<http://www.bartonmarine.com/pdf/tech-info-Fitting-Towable-T-Track-cars.pdf>

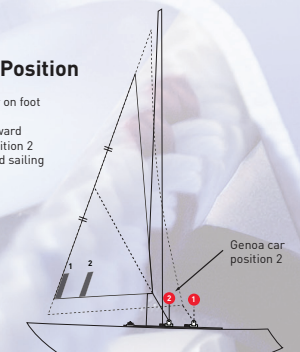
Full Sail

Genoa car in optimum position for windward sailing performance.
Rule of thumb -
Sheet lead angle bisects luff length of Genoa.



No.2 Genoa Position

Furled to first marker on foot of Genoa.
Genoa car moved forward from position 1 to position 2 for optimum windward sailing performance.



Working Jib Position

Furled to second marker on foot of Genoa.
Genoa car moved forward from position 2 to position 3 for optimum windward sailing performance.

