

SCOTT BOOMLOCK

INSTALLATION INSTRUCTIONS

Do not be dismayed by the length of these instructions. It is all really quite simple and straightforward!

BOOMLOCK ONE is intended for mono-hull yachts with mainsail areas up to 250 sq.ft. (23 sq.m.) It is not recommended for use with multi-hulls.

There are 2 alternative types of mounting to attach BOOMLOCK ONE to the boom:

Type A - For booms with underside tracks. Various mounting sizes are available to suit different boom tracks. This mounting is split and can be inserted anywhere in the track without disturbing other fittings or end caps.

TYPE B - For booms with an inadequate track, or no track at all. Only one size is needed to fit all booms. This type of mounting is riveted to the boom with Monel pop-rivets.

To complete the installation, you will need a preventer line with carbine hooks each end, a control line and a few items of deck hardware to run the control line back to the cockpit. We can supply the lines, carbine hooks and a deck hardware kit which includes the other items normally required. Details are as follows:

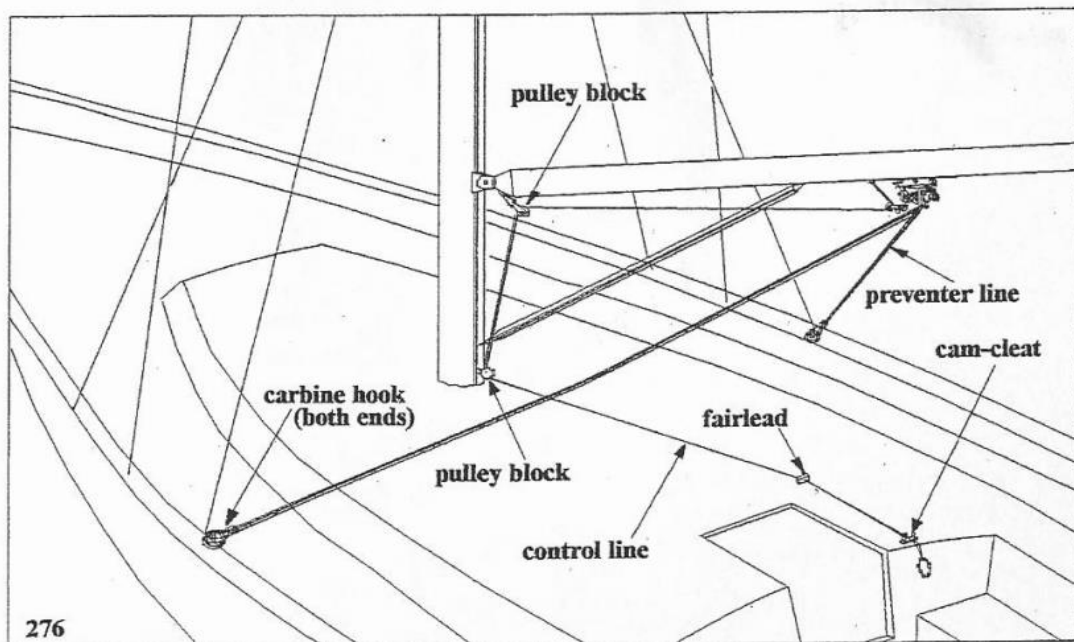
Preventer line: 8mm 16-plait matt polyester - 7m long, blue.

Control line: 4mm Spectra SD3 - 8m long, red. Marlow now call it 'Excel Racing (to get good control, you must use this type of rope because of its very low stretch)

Carbine hooks: 2 - 80mm 316 stainless steel safety lock carbine hooks with 5mm rings.

Deck hardware kit:
2 - 19mm single pulley blocks and shackles
2 - Bullseye fairleads with fixings
1 - Cam-cleat with fairlead and fixing

Installation

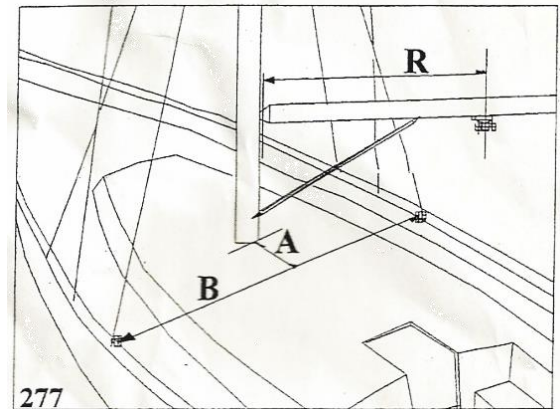


STEP 1 - LOCATING THE ENDS OF THE PREVENTER LINE

The preventer line needs to be attached to strong points on or near the toe-rail at each side of the boat, positioned so that the line joining the two points runs aft of the mast by a distance 'A' equal to between one-sixth and one seventh of the distance 'B' between the two strong points - see diagram.

The aft chain plates or aft shroud attachment eyes often come in about the right place and it may be convenient to lash a ring to these eyes to which the carbine hook at the end of the preventer line can be attached, to allow quick release in harbour. Use at least 4 turns of 4mm line for the lashing.

If your yacht has extruded aluminium toe-rails, you can get from chandlers two Wichard Toe-rail Padeyes (there are 3 sizes to fit different toe-rails), which can be clamped in any position on the toe-rail, to provide a quick and easy solution. The importers are Pro-Boat, Burnham-on-Crouch, Tel: 01621 765455



$$A = B \times (1/6 \text{ to } 1/7) \quad R = B \times (1/2 \text{ to } 3/5)$$

Remember that the preventer line can be under considerable load, and the attachment points must be capable of withstanding a pull of 1000 lbs. (450kg). The line must never be attached to the rigging screws or shrouds themselves, as the resulting distortion could cause rigging failure.

STEP 2 - LOCATING BOOMLOCK ONE ON THE BOOM

BOOMLOCK ONE fits to the underside of the boom, positioned so that the distance back 'R' from the gooseneck vertical pivot to the middle of the drum is between $1/2$ and $3/5$ of the distance 'B' between the preventer line attachment points - see diagram. It must come aft of the boom vang or kicking strap attachment and will reach a point nearly above or slightly outboard of the preventer line attachment point when the boom is swung right out.

Don't worry about what could be a very steep angle of the preventer line when the boom is right out. When the mainsail is taken aback, there will be enough slack in the preventer line to allow the boom to swing before being held by the BOOMLOCK, reaching a position where the vertical angle is not excessive.

STEP 3A - INSTALLING THE TYPE A MOUNTING

Tools you will need: 2 x 8mm spanners, hand drill with 4mm drill bit, and screwdriver

Other items: Marine grease, and silicone sealant

There are a number of different TYPE A slides available to suit a variety of makes and sizes of boom. Make sure that the slide sent with your BOOMLOCK ONE is a snug fit in the track, and cannot be dislodged by a sideways pull. If it is not the right size, ask us to exchange it.

The slide can be inserted anywhere in the track if each half goes in separately and the two halves are then slid together and bolted with 3 bolts and nuts. (8mm spanner).

To assemble BOOMLOCK ONE to its mounting, first remove the 6mm dia pivot bar. Apply a smear of marine grease to the pivot bar before re-assembly, and mount the BOOMLOCK with the pulley block end towards the mast, and with a **washer between the mounting slide and the BOOMLOCK frame, each end.**

Then swing the boom from side to side, to see how this temporary line slackens and tightens through the swing. Minimum change in length is the objective, with any slackness coming in the middle of the swing, rather than at the ends. If the line becomes tight in the middle and is slack at the ends, then move the BOOMLOCK ONE slightly forward, take up the slack in the line and try again.

This exercise will also show up any fittings such as handholds or ventilators which could snag the preventer line. These have to be dealt with in the usual way, although sometimes it is possible to fit a cleat to catch the preventer line before it reaches the snag.

When the optimum position for the BOOMLOCK ONE has been decided, fit the cord mount with its heel against the forward face of the mounting slides (see diagram below). Then drill two 4mm holes in the upper face of the boom track for the fixing screws. Apply a little silicone sealant to the top face of the cord mount and to the screws, before fixing.

STEP 3B - INSTALLING THE TYPE B MOUNTING

Tools you will need: Pop-rivet gun for 3/16 rivets Other Items: Silicone sealant
Hand drill with 4mm and 5mm bits
Screwdriver
Vice or pliers

Bend the straps of the TYPE B fitting to fit the shape of the boom. Each strap has multiple holes to make bending easier. If the strap is put in a vice, so that half a hole is visible, the strap can easily be bent by hand. The axis of the pivot tube should not come more than 16mm below the boom.

Locate BOOMLOCK ONE on the underside of the boom and check its location, as described in the previous section, but strapping it to the boom temporarily.

Coat the inside of the straps and the screws with silicone sealant or other insulant. Then drill 5mm holes in the boom for the 3/16" Monel pop-rivets. Use the hole at the top of each strap, and also the lowest hole in each strap that is tight to the boom. 8 pop-rivets in all. Do not use more. Attach the cord mount to the underside of the boom immediately forward of the mounting, with 2 self-tapping screws into 4mm drilled holes. Apply a little silicone sealant to the face of the cord mount and to the screws, before fixing.

STEP 4 – INSTALLATION OF CONTROL LINE

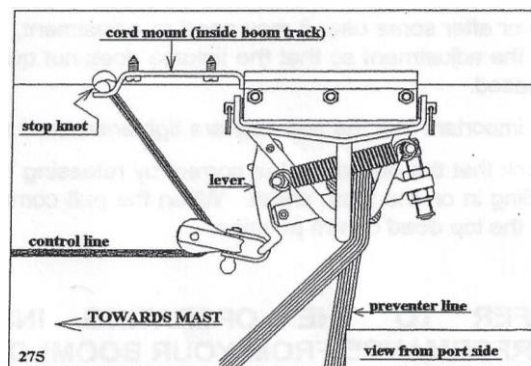
It is important that the control line is 4mm. Spectra SD3, which has minimal stretch, in order to get control.

It runs through the pulley block shackled to the actuating lever of BOOMLOCK ONE then upwards through the hole in the cord mount above which a figure of eight stop knot should be tied in the end of the line.

Pass the other end of the line forward through a pulley block shackled to a point on the boom close to the gooseneck and another shackled to a convenient point near the foot of the mast and close to the centre-line of the boat (see Fig.1). Make sure that the line does not change in length as the boom swings or as the boom vang or kicking strap is adjusted. The line may need to be passed through a fairlead if it should chafe against the boom vang.

The line is then led back to the cockpit, using bullseye fairleads or turning blocks, if required, where a cam-cleat should be fixed wherever it can easily be reached. The cam-cleat should be of a type which has a fairlead on its top or forward side, to restrain the control line, when released. Check that the line operates without undue friction or chafe.

Form a loop in the end of the line, or use a starting cord handle to make it easy to pull.



STEP 5 – INSTALLATION OF PREVENTER LINE

Thread the Preventer line through BOOMLOCK ONE as shown in the diagram. Refer to the operating Instructions for a detailed explanation of how to do this.

Attach a carbine hook to each end of the Preventer line. It is probably best to attach the carbine hooks with bowline knots rather than splicing to begin with, and to leave some spare length until you are sure that the line length is correct.

Make sure that the preventer line is slack enough to allow the boom to swing inwards about 20 degrees from its fully out position before being held by the BOOMLOCK. This will ensure that the pulls are not too vertical.

With the BOOMLOCK unlocked, make sure that the preventer line will never become taut as the boom swings or as the boom vang is adjusted, as this could cause an undue restriction to swinging.

BOOMLOCK ONE should never be used as the sole means of preventing upward movement of the boom. This is the job of the kicking strap or boom vang.

CLAMPING ADJUSTMENT

Tool required for clamping adjustment: 13mm jaw-ring spanner.

BOOM LOCK ONE is sent out with the clamping adjustment set to a normal position for the recommended 8mm 16-plait matt polyester preventer line. Particularly if you are using a different line or after some use, it may need re-adjustment, using a 13mm Jaw-ring spanner on the two nuts. Set the adjustment so that the linkage does not quite reach top dead centre when the control line is released.

It is important that the two nuts are tightened hard against each other, or they will work loose.

Check that the adjustment is correct by releasing the control line to lock the BOOMLOCK and then hauling in on the main sheet. When the pull comes on the preventer line, the linkage should click into the top dead centre position.

REFER TO THE OPERATING INSTRUCTIONS TO GET OPTIMUM PERFORMANCE FROM YOUR BOOMLOCK ONE.

