# SCOTT BOOMLOCK TWO

# INSTALLATION INSTRUCTIONS

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

BOOMLOCK TWO is intended for mono-hull yachts with mainsail areas 250 - 600sq.ft. (23 - 55sq.m.) It is not recommended for use with multi-hulls.

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

<u>Type A</u> - For booms with underside tracks. Various 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.

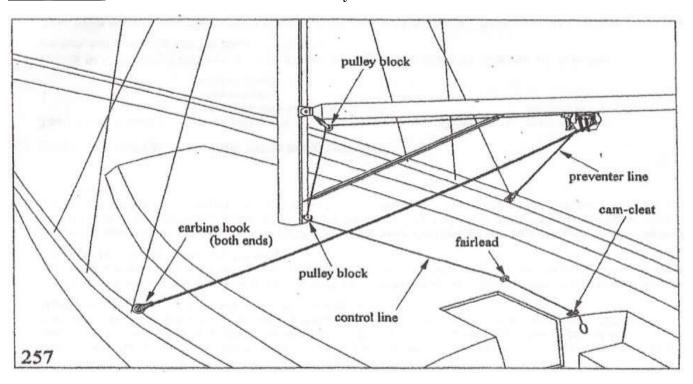
<u>TYPE B</u> - For booms with an inadequate track, or no track at all. Only one size is needed to fit all booms. This type of mounting is riveted to the boom with Monel pop-rivets.

To complete the installation, you will need a preventer line with carbine hooks each end, a control line with handle 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: 12mm 16-plait matt polyester - 10m long, blue.

Control line: 4mm Spectra SD3 - 10m long, red. (It is essential to use Spectra for precise control) with T-handle.

<u>Carbine hooks:</u> 2 - 120mm 316 stainless steel safety lock carbine hooks.

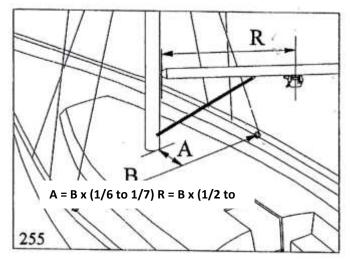


### STEP 1 - LOCATING THE ENDS OF THE PREVENTER LINE

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 equal to between one-sixth and one seventh of the distance 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 is sometimes convenient to fit a ring or shackle to which the carbine hook at the end of the preventer line can be attached, to allow quick release in harbour.

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 1.



Remember that the preventer line can be under considerable load, and the attachment points must be capable of withstanding a pull of 3300 lbs. (1500kg). 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 TWO ON THE BOOM

BOOMLOCK TWO fits to the underside of the boom, positioned so that the distance back from the gooseneck vertical pivot to the middle of the drum is between 1/2 and 3/5 of the distance 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 8mm spanners, hand drill with 4mm drill bit, screwdriver, and pliers Other items: Marine grease, 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 TWO 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 as each half goes in separately. The two halves slide together and are bolted with 3 bolts and nuts. (8mm spanner).

To assemble BOOMLOCK TWO to its mounting, first remove the 8mm dia pivot bolt by unscrewing the retaining screw (see diagram on page 3). The sheave carrier is also retained by this screw. Apply a smear of marine grease to the 8mm pivot bolt before re-assembly and mount the BOOMLOCK with the sheave carrier end towards the mast and with a thin nylon washer between the pivot bolt head and the trunnion.

To replace the sheave canter, position its two lugs in the holes inside the trunnion casting, then insert and tighten the retaining screw.

Before fitting the stop bar against the forward end of the mounting slides (see page 3), check that the positioning of the BOOMLOCK TWO is correct. To do this, run a light line from one preventer line attachment point to the other, through the rope guides on the BOOMLOCK drum.

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 TWO 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 TWO has been decided, fit the stop bar with its heel against the forward face of the mounting slides (see diagram below). Then drill three 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 stop bar and to the screws, before fixing.

### STEP 3B - INSTALLING THE TYPE B MOUNTING

<u>Tools you will need</u>: Pop-rivet gun for 3/16 rivets

but strapping it to the boom temporarily.

Hand drill with 5mm bit

Screwdriver Vice or pliers Other Items: Marine Grease Silicone sealant

Locate BOOMLOCK TWO on the underside of the boom and check its location, as described in the previous section,

Then bend the straps of the TYPE B filling 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.

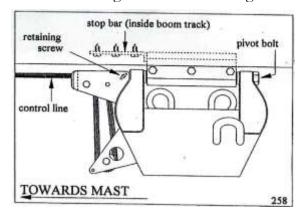
Coat the inside of the straps with silicone sealant or other insulant, and locate the mounting so that 5mm holes can be drilled in the boom for the 3/16" Monel pop-rivets. Use the hole at the top of each of the 4 straps and also the lowest hole in each strap that is tight to the boom.8 pop-rivets in all. No stop bar is needed with this mounting.

# STEP 4 - INSTALLATION OF CONTROL LINE

It is important that the control line is 4mm. Spectra 603, which has minimal stretch, in order to get precise control. It runs over the top of the fixed pulley on the BOOMLOCK TWO and then down underneath the pulley on the actuating lever. Then upwards through the hole in the cross-bar above which a figure of eight stop knot should be tied in the end of the line. This knot will need to be squeezed with pliers to allow it to bed down between the side plates.

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, and 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. The BOOM LOCK TWO return springs must be able to pull the line back easily when the line is released. Attach the T-handle to the end of the line to make it easy to pull.

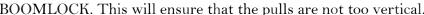


### STEP 5 – INSTALLATION OF PREVENTER LINE

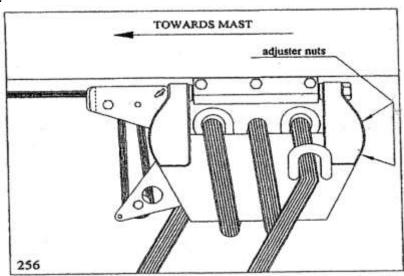
Thread the Preventer line through BOOMLOCK TWO as shown in the diagram.

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. Leave enough spare to allow a further turn round the BOOMLOCK TWO drum, in case you find you need it later on. (See Operating Instructions)

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 TWO 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 TWO is sent out with the clamping adjustment set to a normal position for the recommended Marlow 12mm 16-plait matt polyester preventer line. Particularity if you are using a different line, it may need re-adjustment, using a 13mm Jaw-ring spanner on the two nuts. The ring end of the spanner must be used for the top nut.

It is recommended that the clamping adjustment should be set so that with the BOOMLOCK fully locked the preventer line slips a bit when the boom swings initially as the mainsail is backed this absorbs the shock loads.

Check the adjustment by locking the BOOMLOCK and then hauling in on the mainsheet. Slip should occur without undue bending of the boom. After making the adjustment, check that the forward end of the internal mechanism is still in alignment laterally. Extra tightening of either the top or the bottom adjuster nut will get the alignment central again.

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