

SILHOUETTE **MAKE & MEND** Sheets

No.10 **SHROUDS & STAYS**

Editor: Ian Rodger

How should the standing rigging go on my Silhouette?

This is a question frequently asked by new owners. In general, there is no difference between the rigging of a MkII, MkIII, IV or V, - the principle is the same, unless you have one of the very early MkII's, still fitted with a 3/4 rig.

Unlike some sailing dinghies the Silhouette has a rigidly stayed mast, that is, the stays and shrouds are intended to prevent it bending in its centre section due to the pressure of the sails upon it. This in turn prevents the main sail from losing its most efficient aerofoil section as the wind increases.

To achieve this all the stays need to be arranged in a particular way and deviation from this may result in a less efficient performance, though it is unlikely that your rig will collapse, even if it doesn't conform to the standard method.

The modern Silhouette rig consists of a forestay running from the stemhead to the masthead, balanced by a backstay (or optionally with some SII's - twin backstays) attached right at the stern.

Which goes where?

The cap shrouds (uppers) should run from the mast head, over a pair of spreaders to the outer edge of the side deck about 12" aft of the tabernacle. The spreaders must be fixed rigidly to the mast in their sockets and swept aft so that the whole length of the stay and the spreader lie in one plane, viewed from above. Some MkII boats had flimsy swinging spreaders and these should be replaced with more substantial fixed ones. Theoretically, each spreader should also be cocked upwards slightly, so that viewed from the bow, it exactly bisects the angle made by the shroud passing over the end of it, though this is usually overlooked in the Silhouette rig. The combination of these two angles ensures that the compression is transmitted directly along the centre of the spreader to the mast. Thus the middle of the mast

is braced forward by the spreaders acting against the tightly tensioned cap shrouds, while the lowers provide lateral bracing for it.

The lower shrouds should go from the root of the spreaders to the deck directly abeam of the tabernacle. Some boats have a second pair leading to a position some 12" forward of the tabernacle to prevent the middle of the mast from bending backwards, but if the uppers are correctly positioned there is no need for this second pair.

It is the bottom fixing positions of the 2 pairs of shrouds which tends to cause the confusion.

Modifying the spreaders

Some late SII's and all SIII's onwards have alloy masts with sockets riveted on to take 1" dia x 2' long spreaders, but unfortunately these are fixed at right angles to the hull. Some boats have the cap shrouds led to the forward deck position, and the lowers to the aft. These need to be corrected and the ideal solution would be to have the spreader sockets riveted on so as to give the correct angle. However, removing and re-riveting the sockets would weaken the mast at its most vulnerable place, so the simplest way is to remove the spreaders and saw a vee 3/4 of the way through, a couple of inches from the outer end of the socket. Increase the width of the vee until you can bend the spreader to an angle where the outer end of it is in line with the stay. You can estimate this angle by measuring that between the tabernacle and the aft shroud plate on the hull.

Bandage the area of the vee cut with two or three layers of fine fibreglass mat, so as to be not too bulky, then fill the spreader tube with a mixture of resin and plenty of chopped strand mat - beware of it overheating as it cures. When set, re-drill the hole for the split pin which secures the spreader to the socket.

Easy rigging

If you trail-sail, and often have to re-rig the boat, setting up the mast correctly can be a time con-

suming business. To speed things up, use a rigging screw to fasten the backstay to the stern, and once you have established the correct mast rake - no more than 3" aft-tighten up the lock-nuts on it. Instead of using a rigging screw on the forestay, bowse it down to the deck fitting with a 6mm terylene strop running through a couple of small bow shackles. Four or five turns will give you ample security, then tie it off securely. This takes out all the agony of adjusting the mast every time you launch. You can also do the same with the shrouds, leaving one side permanently set with a rigging screw.

Remember that the standing rigging should be really taut, so you need to get plenty of purchase on strops if you use them. Tighten up the wires until a low but audible twang can be produced. Details of fine tuning the rig for best sailing results are given on SOIA Fact sheet No. 11.

