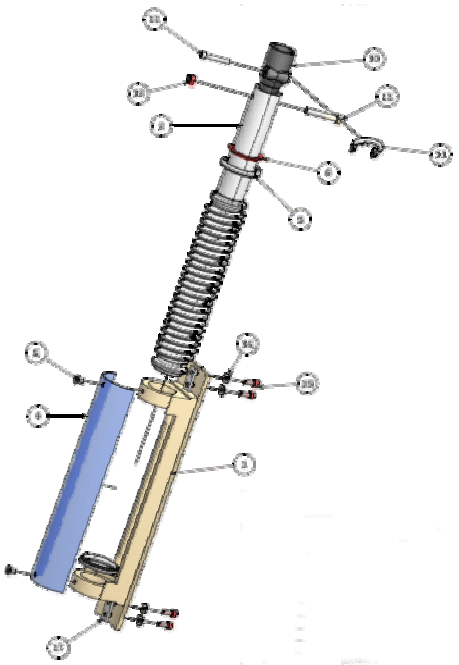
FURLING MASTS for easy control of the mainsail

These masts incorporate a vertical tube in the aft body of the mast to which the luff of the mainsail is attached. The tube is rotated by pulling on a rope wound round a helical drum attached to its lower end, thus reefing or furling the mainsail.

FEATURES

Helical drum furling mechanism - removable for easy maintenance
Easy access to halyard swivel
Minimum maintenance required
Integral track for storm trysail
Recirculating ball boom car
Integral clew block for mainsail
Control blocks supplied
Staightforward installation of sail
Slot cut to match length of mainsail luff

Dimensioned drawings of each mast section can be seen here.



Isometric exploded view of furling drum

DETAILED SPECIFICATIONS

Installation and Maintenance

Installing the furling rope

Inside the slot underneath the gooseneck it is possible to see the coils of rope wound on the furling drum (D). Make sure that the rope is fully wound on the drum, then unwind 3 turns. Lead the rope through this slot around the pulley situated under the boom, just in front of the kicker (vang) fitting, then through the swivel pulley attached to the mast base, and back to a winch.

Installing the outhaul rope

This rope attaches to the front of the boom traveller (car). It leads around the clew block on the mainsail, underneath the pulley on the boom traveller, around the sheave in the boom outhaul casting, through the halyard exit under the boom (or over the sheave in the boom front end casting), through a pulley behind the kicker and forward to a swivel pulley at the base of the mast. This leads aft in the same way as the furling rope.

Installing the sail

Open both sets of inspection covers (C) by removing the top screw and loosening the lower one. Moving the cover sideways will reveal the sail entry slot cut in the furling extrusion (B). Feed the head of the sail through the mast slot and into the sail entry slot. Lower the main halyard to allow the shackle on the top swivel (A) to be attached to the strap sewn into the head of the sail, using an Allen (hex) key. Continue to feed the sail into the slot whilst the main halyard is being hoisted. Do not attempt this with the wind astern. The task is best attempted in little or no wind. Connect the bottom strap on the sail luff to the base of the furling extrusion with the shackle provided, by gaining access through the lower inspection ports. This tack shackle also connects the furling extrusion to the furling drum.
Refit inspection hatches.
Complete the installation by applying moderate tension to the main halyard.

Furling the sail

Hoist the boom topping lift and/or ease the kicker so that the leech is slack. Maintaining a light tension on the outhaul, furl the sail with the wind ahead. A slight pressure from the wind will avoid creases in the sail.
Ensure that the furling drum has 2 or 3 turns of rope left on it when the sail is furled as far as the clew reinforcement patch.

Maintenance

Minimal maintenance is required. Flush bearings with fresh water at end of season.

Changing the furling rope

Open the lower inspection hatches and remove the tack shackle as described previously. This will disconnect the furling drum from the furling mechanism.
Remove the machine screws holding the furling mechanism to the mast, and pull it away at the lower end. The furling rope is retained by a simple knot inside the furling screw. Push the rope inwards and the knot will appear at the bottom of the furling screw. Undo the knot and replace the rope. We recommend a 10mm braid of good quality that will not flatten. Reassemble the unit before loading all the threads with the new rope. Slacken the main halyard, reconnect the tack shackle and refit inspection hatches.

Causes of malfunction

Resistance encountered when unfurling the sail.
Most likely cause will be excessive mainsheet or kicker tension. Check also for friction within the halyard organisers or at the mast base blocks or elsewhere within the deck layout. Also, if the sail is not new, there may be localised hardening of the head reinforcement, or fraying at the leech which can cause friction. We advise having the sail checked annually to avoid such problems.
Creases at the luff
If these cannot be removed by increasing the main halyard tension, the most likely cause is that the sailmaker has made the luff too long. Alternatively, the sail may have been furled with too much leech tension.

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