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TAMING DOWNWIND SAILS

Furling gear for flying sails

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THE FLYERS OF THE FURLING WORLD

Furlers for 'flying' sails such as Code 0s or gennakers are making these exciting offwind sail options much easier to handle. Toby Hodges reports on the latest developments in furling technology

Thanks to what I call 'sexy' furlers, offwind sailing with flying sails can be a doddle. Flying sails are those not permanently rigged and thus can be stowed below – so the ability to set and strike gennakers and Code 0 sails with ease increases confidence in using these exhilarating offwind options.

These types of sails and furlers are seen on many of the boats we test these days and could finally signal the end of the spinnaker snuffer. The furlers allow the sail to be hoisted while furled, then set in a minute from the safety of the cockpit.

For the uninitiated, gennakers and particularly Code 0s (with even less camber) can be flown closer to the wind than a conventional spinnaker and require no pole or its attendant sheets/guys, lifts and downhauls. However, with a high luff load (particularly the flatter-cut code sails), they need furlers with a high strength-to-weight ratio and sturdy bowsprits and attachments.

Flying sail furling systems comprise a top swivel, a torque/torsion line and the furling drum. The stiff 'anti-twist' or 'torque' line carries the load and is incorporated into the luff of the sail, with thimbles at each end to convert the rotation up to the head. Staysails and storm jibs can also be flown from the furlers using the same top and bottom swivels.

And for those who are quite happy with their current cruising chute or spinnaker, but would like to be able to furl them like a gennaker, there's good news. We've included a couple of asymmetric furling systems, as well as the next big thing: 'top-down' furlers – these are a recent addition to high-end race boats, but they could soon transform kite-flying for cruising boats too.

How flying sail furlers work

Flying sail furling systems principally comprise a spool (or drum) and a swivel, which is hoisted to the mast. They employ an endless/continuous furling line around the spool to eliminate riding turns. This leads aft to the cockpit, although some racing boats use short lines for foredeck crew to operate.

As only one turn of rope is needed around the drum, the furler can be narrow and light – one-third the depth of a traditional genoa furler and less than half the weight. If you were a fisherman, you might say they're more like a fly reel than a big game reel, allowing for maximum luff length by keeping the drum (and thus the tack) close to deck level.

And the extra diameter provides extra torque for furling – but note, an endless line means these sails are not designed to be reefed.

Loads of load

Code sails have tensioned luffs that carry a percentage of the forestay load and these loads have to be considered – stronger bowsprits and perhaps bobstays may need to be fitted.

As all boats and sail cambers differ, it would be advisable to consult with your supplier, rigger and sailmaker before fitting one.

EQUIPLITE CODE 0/STAYSAIL DRUM

Splice connections: making the lightest possible lashings. The splices on the Quick LOOP drum and top swivel help to reduce fatigue by operating at a low percentage of ultimate tensile strength (UTS)

Maximum compactness and minimum friction by leading the loops directly through the centre of the bearing

Special custom bearing capable of enduring the highest radial and side loads is used to reduce friction on the system

The top swivel has Dyneema loops too

Masters of lightweight

Having started as a small operation in Australia, Equiplite are the masters of lightweight deck gear, specialising in DSK 75 Ultra (Dyneema) lashings. The company claim these offer significant weight reduction over other furling assemblies of the same load – typically 60 per cent lower drum weight with the 1:1 and 40 per cent with the 2:1 drums.

Their top swivels integrate into the halyard or lock system (doing away with a halyard swivel) for minimum weight and rig damage and maximum luff length.

RANGE: from 2FS (1.4-tonne max workload) – 22FS (45-tonne max work load)
PRICES ON APPLICATION
www.equiplite.com

NEW 2:1 DRUM FOR 2010
This may look very similar, but the key difference with this 2:1 drum is the angle of the block. This can be changed to any required angle, ensuring the smoothest furling line exits

Furlers for retrofitting

These two systems are perfect for those who don't want to go to the expense of having a new Code 0 or gennaker made, as they can be retrofitted to cruising chutes/ asymmetrics

Facnor AsymFX

Facnor also do an asymmetric furler, which looks almost identical to the FX furler (see page 33), but with a key addition. These are still positive luff sails (so use a torque line), but the furler is free of the sail's luff and uses a small line attachment in the middle (a fourth point modified to the middle of the luff).

During furling, the top and bottom bearings trip out while the centre of the luff – where loads are relatively weak – collapses and furls first, tightly and neatly (see diagram). A further advantage is that the same furling line and FX drum can be used for a variety of headsails, including codes, asymmetrics and staysails.

From £860 ex VAT for the small model. **www.facnor.com**

AsymFX asymmetric furler. Centre of the luff furls first

Magic Furl – Crusader

Crusader brought out their Magic Fur system a couple of years ago and it's ideal for cruising boats to tame and furl asymmetrics. By using a braillling patch to grab the centre of the luff, Magic Furl works from the centre up and down, like Facnor's AsymFX system, left. Thus it's easy to retrofit t your current downwind sails – and you can simply switch swivels from a code sail to an asymmetric.

RANGE: Five sizes for boats from 20-80ft. Prices from £537 ex VAT.
www.crusadersails.co.uk