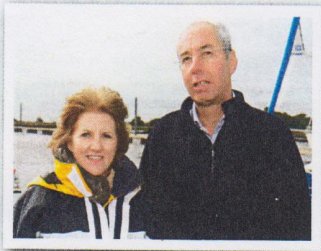


# Head to head

Which are best: self-tacking jibs or overlapping genoas?  
Tom Cunliffe sets sail on two yachts with identical hulls  
but different rigs to help a cruising couple decide



Robert and Dolores Newton want to buy a new boat but had been given contradictory advice



Same hulls, different rigs:  
which was best on the day?

# Sailing Skills

14 PAGES OF

- EXPERT ADVICE
- USEFUL TIPS
- PRACTICAL PROJECTS

**R**obert and Dolores Newton are YM readers who have run a number of businesses and now own a garden centre near Harrogate in Yorkshire. Until recently they've been chartering, but ownership is becoming a strong possibility. They were checking out likely contenders at the Southampton Boat Show when Robert came across an important question which conflicting advice from sales personnel had left unanswered. When, he wanted to know, was a self-tacking headsail best? What, if any, were its advantages over a conventional overlapping genoa, and what was the downside? Hoping for straight answers, he wrote to me. I called Miles Kendall, YM's deputy editor, and he talked to Northshore Yachts. Robert and Dolores hopped on an early plane at Leeds Airport and we all met up one windy morning in Chichester Harbour, West Sussex.

## ON THE DAY

We were extremely fortunate for our day out with Robert and Dolores, in that Northshore Yachts' current range includes a 35-footer with the option of a conventional genoa/masthead rig (the Southerly 110), or a taller, fractional rig with self-tacking foresail on the Southerly 35RS. Both yachts feature the unique Southerly swing-keel system, which allows them to sail shoal waters and to beach safely on the tide. I'd been keen to try these boats, so I grabbed the chance. The Clerk of the Weather served up a solid Force 5 and the two Northshore skippers were real

sailors. One way and another, we couldn't have done better.

## WHAT IS A SELF-TACKING HEADSAIL? HISTORY

The seductive idea of tacking without having to haul on headsail sheets is as old as the fore-and-aft rig. Back in the 19th century, Essex smacks and Thames sailing barges were saving money on crewmen by using such systems. Like us, these eastcoasters set headsails on the forestay, but instead of controlling them with a pair of sheets and two expensive winches, they sheeted them down to a 'horse' set square across the deck. Because the sheet was made fast to itself, when you tacked you had only to shove the helm over and the headsail flopped across without attention.

Cutter-rigged cruising yachts traditionally also employed self-tacking staysails, but these had the added sophistication of a boom, which allowed the single sheet to be led aft for trim adjustments.

## TODAY'S SELF-TACKERS

Modern self-tacking headsails have used lateral thinking to make the best of both these worlds. The sail sheets to a horse with a simple purchase like an Essex smack's, except that this is aluminium with roller-ball cars rather than wrought iron with an old shackle. It has also been renamed the 'traveller' so as not to confuse equestrian mariners. Like the early cruising yachts, the sheet is led aft, but instead of coming down the sidedeck, it goes

vertically up to an aperture in the mast (see main photo), then down inside via a turning block, and aft to the cockpit. It can usually be sheeted by hand, but a winch may assist in strong conditions. The long length of the rising part of the sheet that ultimately leads aft allows the clew to cross the track without the interference from which other systems used to suffer. Like the smack and barge, it is entirely self-tending as you tack or gybe.

## LIMITATIONS

The obvious limitation of a self-tacking headsail is that by definition it cannot overlap the mainsail. However, the very fact that the sail must, out of necessity, be tall and thin, means it is also an excellent aerofoil with a long leading edge. Once the sheet is eased, however, it becomes difficult to trim. But more of this later! Poled out to windward when running, it loses out over a big genoa by sheer lack of area. It can, however, have a narrower sheeting base than a genoa, which theoretically allows the boat to point higher, in calm water at least.

## TECHNICALITIES – The two boats

### THE SOUTHERLY 110

The standard '110' we sailed was a 35ft masthead sloop. Interestingly, a further option is offered in the form of a taller rig with a smaller overlapping genoa, but ours featured a conventional 24.5m<sup>2</sup> (264sq ft) main

with a 31m<sup>2</sup> (334 sq ft) roller headsail.

The rig is stayed with two sets of in-line spreaders, aft lowers and a baby stay. The baby stay means that a self-tacker cannot be used with this rig, because of its vertical leach and the vertical-leading portion of the sheet.

Like her sister, the boat's draught can vary between a ditch-crawling 0.72m (2ft 4in) and a powerful 2.18m (7ft 2in), and in case anybody reading this is wondering how such a boat can stand up in heavy weather, I was curious myself. However, the GZ stability curve is openly published and would be the envy of many a more pretentious sea boat, even with the keel up.

### THE SOUTHERLY 35RS

This was the boat I was longing to get my hands on. The diagram speaks for itself about the rig arrangement, and I loved the big mainsail, the tall, elegant fractional rig which, on paper at least, should suck her so effortlessly up to weather. The main drawback looked like being the dreaded aft-swept spreaders. Sadly, this is the only way currently available to backstay a fractional rig conveniently. You just have to live with mainsail chafe on a broad reach and the fact that you can't really square the boom away on a run.



**SAILING WITH THE CONVENTIONAL GENOA**

No surprises here. It was windy, and it did the boat great credit that although we didn't actually reef, she remained under full control most of the time. We only had to dump the mainsheet to prevent a broach once or twice. Readers who sail old-fashioned craft with good manners might be saying, "What?! He had to let his mainsheet run and he thinks that's OK?" Well, I hear you loud and clear. If any boat of mine did that I'd be looking for a different one, but seen in the context of the beamy yacht of today with all her benefits of usable internal volume, this was a pretty impressive performance. I have experienced far, far worse.

**TACKING**

Robert shrewdly opted to steer as we short-tacked up a creek, so that he and Dolores could watch Mike and I working the sweat shop. The grunting at the winches

**'Grunting at the winches is an inescapable drawback'**

for the typically middle-aged folks who buy 35-footers is an inescapable drawback of conventional masthead rig. So compromising can this be to the health of an otherwise office-bound sailor, that many resort to motoring up rivers instead of giving their boats a treat. To do the Southerly credit, the winches and other gear were so well thought out and of such quality that I found little trouble cranking in. I am, however, 16 stone and I had Mike from Northshore on the other side. Mike's a rugged man and we've both been pronounced reasonably fit by the MO, but it was still a work-out. I don't think my wife would have relished it for 20 tacks in half an hour. Dolores agreed emphatically, and when Robert muscled up to giving it a go, he was glad he didn't have to do both sides.

The hard labour apart, just the hassle of helping an overlapping sail across the foredeck, past the shrouds and everything

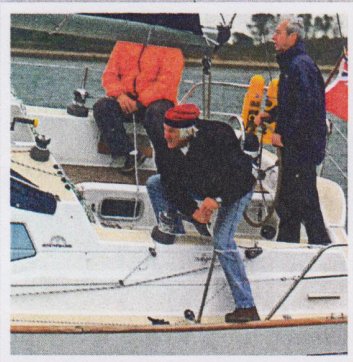
else that catches it can become increasingly annoying as tack piles up on tack. This one was exceptionally easy, but there was no escape from the clatter of the winches putting the local curlews off their stroke, the thunder of canvas, and the general feeling of stress.

**OFF THE WIND**

The full-sized genoa was great on a beam reach, although the boat didn't seem to outpace the 35RS. However, as the wind drew further aft, the sail entered that twilight zone between being poled out for a run and collapsing behind the main. The larger main on the self-tacking boat paid off here, and away she went.

**'SHEETABILITY'**

Because the sheet lead cars are well outboard and readily adjustable, and because the sail is of comparatively low aspect ratio (not tall and thin), the genoa sheeted effectively and without fuss on a reach. The self-tacker proved a different kettle of fish.



**ABOVE: The genoa sheeted in efficiently but it was still hard work**

**BELOW: The foredeck and mast were uncluttered yet the sail still managed to become caught during a tack**



## SAILING WITH THE SELF-TACKER

**T**he bigger main went up without a struggle, and as the jib unrolled it felt tiny. Immediately, we felt we had left the fuss and bustle of the foredeck bobbing in our clean wake. However, it wasn't all happiness. We started out on a reach, and as soon as the sheet was eased, the jib became no friend of mine. The leech fell away alarmingly as it so often does on 'blade' headsails, and began beating like a scout's hat brim in a gale of wind. The only answer was to sheet it with the foot too tight and the head too open, then go forward and adjust the leech line. For a time, this really annoyed me, but as we sailed on I realised that the main was really doing most of the work and we were gaining steadily on the other boat.

Clearly, the answer to sheeting the jib off the wind is to 'barber-haul' the clew to leeward with a handy line. Northshore tells me it has rigged such set-ups for keen owners. If it sounds too much trouble, don't worry. You

won't bother with it on a short reach, but on a longer passage it would be well worth the effort of letting that lovely sail set as it can and should. As for the 'motoring leech', we could only infer previous abuse, unless the sailmaker needs to be led down a dark alley for a quiet word.

One final shortfall on this particular boat was the swivel block on the jib sheet purchase. I've seen these fitted before, and they lead to the same problem every time. The sheet develops a 'memory', the block twists with it and suddenly you're in Friction City. A self-tacking headsail doesn't need a pair of big cockpit-coaming winches. It should have a light, single sheet on a simple tackle that's often adjustable without a winch at all. Because of this wretched block we were left with a significant load to wind in via the coachroof manifold. My advice is to sell the standard block at a boat jumble, kit up with a fixed one and buy a round of drinks with the change. It won't be as ideal as the swivel version is in theory, but in practice you'll love the result.

**'We left the fuss of the foredeck bobbing in our wake'**



The sheet runs almost vertically from the traveller to a block half way up the mast

### SAILING WITH THE SELF-TACKER: STRENGTHS AND WEAKNESSES

#### » THE CRUISING CHUTE OPTION

Blocks aside, the only minus points of this rig for most uses were in the off-wind mode. On passage, where such things actually matter, all of them would be cured at a stroke by a cruising chute. Because of the big main/small foretriangle configuration, this wouldn't have to be huge, and the boat would chuckle as she kicked up her cheeky heels.

#### » MANOEUVRING

Obviously, you can't back a self-tacking headsail but, so long as we kept way on, our boat never looked like missing stays. Rigging her with a barber-hauling system (as the Essex smacksmen did, calling it a 'bowline') would relieve the otherwise impossibility of

heaving-to. We had some concerns about how well the boat would sail under her tiny headsail alone for wind-against tide moorings and the rest, but we needn't have worried. She reached, gybed and even tacked with the main stowed.

**'Most of the minus points for this rig would be cured at a stroke by buying a cruising chute'**

#### » TACKING

The 35RS was 'tacking heaven'. Robert was dumbstruck. As he steered confidently through tack after tack without touching a sheet, Dolores asked, 'Is that it then?'

The boat really encouraged us to sail her. Put simply, for the close-in handling, which I love and which the Newtons had understandably previously fought shy of, it made up for all the drawbacks ten times over. What fun we had, and how easy the boat made it.

**Step-by-step simplicity: The self-tacking Southerly slips through a tack with the minimum of fuss, leaving its genoa-rigged sister flapping in its wake**



#### » NEXT MONTH



Inspired by the fun he had short tacking the Southerlies, Tom Cunliffe focuses on close quarter and river sailing. He shares the tricks and tips that allow you to play the tide and wind as he works up the Beaulieu River under sail, between moorings and moorhens.

#### » CONCLUSION

Gary at Northshore summed up the whole question of which system might be better when he stated his first law: 'Every advantage confers an equal and opposite disadvantage.' Both of these Southerly rigs had much to offer. If you really want to sail rather than motorsail, and you don't anticipate too many extended downwind legs, the self-tacking headsail would be

emphatically the right choice. Should your predilection be for downwind passages in the trade winds, the chafe from the aft-swept spreaders would probably drive you to drink or worse long before you made landfall. The secret, as Robert Newton had worked out before he called me initially, was to discover what both can really do, then decide which suits your needs. ▲

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