



Getting to grips with gaff

With modern designs in the classic style becoming ever more popular, David Harding offers some tips on getting the best from a gaffer

There's no question about it: modern gaffers are go. Almost wherever you look around our shores, the number of boats sporting bowsprits, gaff rigs and tan (or perhaps cream) sails is on the increase. The appeal of these classic-style designs with a modern twist is easy to see. They combine echoes of traditional charm with modern convenience and, in many cases, surprisingly good performance to boot.

More often than not, people who own boats like this have never sailed with a gaff rig before but enjoy its practicality apart from anything else. With boats of a trailable size, trailing and rigging is generally simpler than with a Bermudan rig because of the shorter spars, lower rig tension and absence of spreaders. The gaff rig's centre of effort is typically lower, so a lifting keel can be lighter and less complicated. Dropping the mainsail is easier and downwind performance excellent even without a spinnaker.

True, upwind efficiency might not match that of a Bermudan rig, but modern gaffers have been known to give 'pointy-sail' boats of similar size a run for their money. That's a function not only of rig developments, such as high-peak gaffs and, in some instances, carbon spars, but also of the hulls beneath the rigs. In fact, the difference in performance between traditional old gaffers and many of the new breed is becoming so great that discussions are taking

place within the Old Gaffers' Association – in whose events modern gaffers frequently now take part – about how to handicap the old versus the new.

For example, in the big and breezy race of the Old Gaffers' 50th anniversary event in Cowes a couple of years ago, Andrew Wolstenholme's Kite – featured in last month's PBO – barely saw any other boats in her class and was effectively racing in the class above. Light and slippery designs like this will readily surf downwind. They take 'gaffing' into a whole new territory.

Pulling strings

Whether or not you're interested in performance in absolute terms, tweaking a gaffer can be both challenging and rewarding. And if you want to race, the competition is there: just look at the Cornish Shrimpers. In Poole we have strong Shrimper fleets sailing from two clubs and involving owners who have previously raced classes ranging from performance dinghies and J/24s to IOR designs in Ton Cup campaigns. That the Shrimper is not fast by any standards doesn't make winning any easier. The best tactical sailors often come from the slowest boats.

We're using the Shrimper as the model in this feature because of her popularity and because the simple, high-peak gaff rig is typical of that seen on other modern gaffers such as the Norfolk Gypsy. When it comes to trimming and techniques, the same principles apply to many boats of similar ilk.



Upwind is traditionally not where gaffers are at their best, but the right sail trim makes a big difference

Which string does what?



Throat halyard

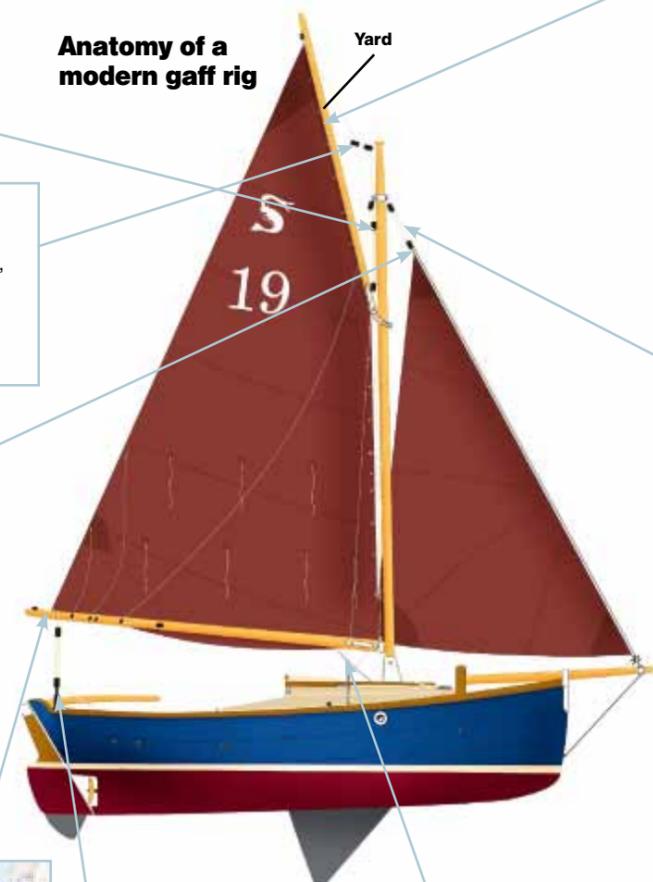
Tensions the luff between the tack and the throat – the point where the yard meets the mast. As with a halyard on a Bermudan rig, more tension pulls the draught (the sail's deepest point) forward.

Yard lacing

Influences the draught position at the top of the sail in the same way that the throat halyard exerts an influence lower down. Because it's neither quick nor easy to adjust, the lacing is generally set and left for the season.



Anatomy of a modern gaff rig



Peak halyard

Tensioning the peak halyard pulls the yard closer towards the vertical, applying more tension to the leech and reducing the twist in the same way that a kicking strap does on a Bermudan rig.

Jib lashing

There's no halyard per se and typically no ready adjustment. As on many small trailable boats with relatively small jibs and low rig loads, the head of the jib is lashed to the top of the headfoil extrusion. A jib Cunningham could be fitted to allow adjustment at the tack.



Forestay

The Shrimper has a forestay inside the headfoil, but there's no bottlescrew to tension it to the levels typically found on boats with Bermudan rigs. Instead, a 2:1 purchase at the top is led down the mast like a halyard.

Mainsheet traveller

Shrimpers originally came with plunger stops in the traveller, but this makes adjustment far too cumbersome. A 2:1 purchase on the car is the answer.



Clew outhaul

One of the most important controls, it determines the tension of the foot and the fullness in the lower part of the sail. It has a greater effect than outhauls on sails of higher aspect ratio.



Kicking strap

Because of the long, low boom, the kicker has much less effect than on a typical Bermudan rig, but it still plays an important role.

Tweaking in practice

To see what makes a Shrimper tick, I sailed on two boats that are usually to be found towards the sharp end of the fleet in Poole – Richard Hornby's *Kingfisher*, No898, and *Roatan*, No575, sailed by Peter and Judy Fontes.

Although the sails on a gaffer are a different shape from those on a Bermudan rig – the mainsail especially – the same fundamental principles apply. You have to learn

some new names and pull some different strings, but your objectives remain the same in terms of optimising draught position, camber, twist and so on. If you're used to tweaking a Bermudan rig to good effect there's no reason why you shouldn't quickly get the hang of a modern gaff.

For all the similarities, however, one essential to bear in mind when

sailing a gaffer – especially one like a Shrimper – is that it rarely pays to strap everything in tight and try to point. You will stop – or as good as. Boats of this nature don't generate the same lift from their rigs or their flat steel centreplates as a modern fin-keeler. They have to be sailed further off the wind. Maintaining momentum is the key, because once they've stopped they take some coaxing to get going again.



Boom angle

The boom needs to be outboard of the quarter; slightly further outboard in lighter winds and closer to the centreline in fresher breezes if the water is flat.

The jib

Because of the relatively low rig tension on a gaffer, the jib is cut to accommodate forestay sag. As on a Bermudan rig, more wind calls for a tighter forestay to stop the sag becoming too great. Judy is chief string-puller on *Roatan*, leaving Peter to concentrate on helming, and says that forestay tension is rarely adjusted during a race because, particularly in close quarters round-the-cans racing in the harbour, there's not enough time. Everyone agrees that the tension of the jib sheet is far more important.

A less sensual topic is sail colour. Shrimper sails were traditionally made from tan cloth and some owners disapprove of the growing trend for cream or white sails. The problem is that it's hard to see the leeward telltales through a tan jib, which is why many Shrimpers now have sails (or, like *Roatan*, just the jib) in a paler colour. The relatively recent adoption of windows in the luff is an alternative solution.



A quick recap

Downwind/lighter winds: slacken outhaul, throat halyard and peak halyard.

Upwind/stronger winds: tension outhaul, throat halyard and peak halyard.

Stronger winds all round: tension kicker.

Any conditions: don't over-sheet the jib. Keep the boom outboard of the quarter.

The mainsail

With gaff rigs, the mainsail generally needs to be fuller than on a typical modern yacht with a Bermudan rig. In broad terms, the heavier and older the gaffer, the fuller the sails need to be. Lighter, more easily-driven new gaffers will point higher and need flatter sails.

Setting the outhaul



Judy Fontes shows the starting point for foot tension on a Shrimper: about a hand's width, and adjust by feel from there.



Richard Hornby adjusts his clew outhaul, which has a 3:1 purchase and a Harken track system. On some Shrimpers the outhaul is now adjustable from the cockpit.



On a reach or broad reach, the outhaul needs to be relatively loose to add fullness to the sail.



This is too tight for most conditions, but illustrates the powerful effect of the outhaul.

Correct sail set



CORRECT: This is a good shape for upwind sailing when a full sail is needed, such as in light conditions in a seaway.

Setting the halyard



WRONG: Here the vertical crease means that the throat halyard, and therefore the luff, is too tight. If, on the other hand, it's hanging in bights between the lacing points, it's too loose.



WRONG: The peak halyard needs to be eased downwind but, if it's not tensioned again for the beat, the result is this crease from throat to clew.



CORRECT: As the breeze picks up, or for sailing in flatter water, more outhaul tension creates a flatter sail.

Areas of imprecision

With a gaff rig, you have to get used to the fact that the yard and the long, heavy boom will bounce and swing around in a seaway – as illustrated by this sequence of *Kingfisher* in a light breeze and poppy sea. There's nothing you can do about it other than use the kicking strap to help keep the boom under control and make sure you sail free enough to keep the sails driving and the boat moving.



As the boat goes up a small wave, the yard swings inboard to create a mainsail with very little twist...



...but as the bow goes down to meet the next wave, the yard swings out and opens the leech.

The flyaway jib stick

Moving to the Shrimper after many years of racing Albacores, Peter and Judy Fontes brought with them the flyaway jib stick. With the inboard end remaining attached to an uphaul/downhaul system on the mast and the outboard end to the clew of the jib, it not only allows the jib to be poled out for goose-winging but also helps to control the twist on a reach.

Upwind, the inboard end is pulled up the mast so the pole exerts no influence and simply



Despite being attached at both ends, the pole is doing nothing here: the jib is twisted open so far that much of the area is being wasted.



Instead of hooking to a ring on the mast, the inboard end of the pole remains attached to an uphaul/downhaul system.

follows the jib across during tacks. The idea has been widely adopted within the Shrimper fleet.



Here the pole's inboard end has been pulled down the mast to push the clew downwards and outboard, resulting in much more drive.

A sailmaker's view

I asked several of the leading sailmakers in the Shrimper fleet for their tips, and Dick Batt of Batt Sails offered the following. Although we were discussing Batt's sails for Shrimpers specifically, these suggestions apply equally to a wide range of modern gaffers.

■ **Keep the jib powerful.** It will be designed with luff hollow to accommodate the inevitable forestay sag on a gaffer. Set the car position to give it enough twist and don't be tempted to over-sheet, though you can sheet it tighter in more breeze and in flat water than in light airs and a chop.

■ **Make sure your mainsail has a reasonably straight exit at the leech.** Like many gaffers, the Shrimper naturally carries weather helm and too much curvature in the leech will exacerbate this tendency. So if the draught has blown aft, as tends to happen with old sails as they stretch, your boat will become both slower and heavier on the helm.

■ **Gaff is not gunter!** Mainsails like the Shrimper's are high-peak gaffs, but trying to angle the yard closer to vertical, like a gunter rig, won't help. Set the peak halyard tension to achieve the right amount of twist and keep the leech telltales flying.

Richard's tips

Maintain momentum: get the boat going, keep it going.

Back the jib: during a tack, back the jib to help the bow round. Then sail free with the jib relatively loose until you're back up to speed.

Peter and Judy's tips

Tack only when you need to: tacking costs at least three hard-won boat-lengths.

Upgrade the hardware: fit what you need to allow easy adjustment. Most fast Shrimpers now have winches, clutches and low-friction track systems.

Conclusion

Gaff rigs provide plenty of strings to pull and offer more than enough scope for inveterate tweakers. For some gaffer owners there are few greater pleasures than surprising the crew of a boat with a Bermudan rig. Whatever your ambitions, it's always worth talking to people who sail something similar. Better still, sail with or race against other boats of the same type, whether in a club race, a rally or a cruise in company.