

Britain's biggest-selling yachting magazine: **sail & power**

No.496 APRIL 2008 • £3.80 • www.pbo.co.uk

**PRACTICAL**

# Boat Owner

**EXPERT'S CHOICE**

**14 Great little yachts from £2,000**

**Revive a wreck, make a profit!**  
How to repair BIG holes

**Cruise control!**

How the Parasailor makes sailing smoother

**Complete guide to AIS**

**PLUS** win a Raymarine AIS and LifeTag man overboard system worth £1,300

**Fitting out for spring**

- Replace canopy windows
- Install a fridge unit
- Top tips for antifouling

**Trailer sailing**

**16** essential checks to get you on the road

**PBO**

**BOAT TESTS: New Legend 25 • Second-hand Jeanneau 40.3**

# PARASAILOR ON TEST

## We try the 'sail with a wing' in 30 knots

The Parasailor spinnaker aims to provide stability, safety and simple handling for cruisers. PBO technical editor David Harding reports

**A**s far as most cruising sailors are concerned, spinnakers are a no-go area. They're much more efficient than cruising chutes, especially deep downwind, but can be unruly beasts when the wind picks up.

That's where the Parasailor comes in. It's a spinnaker with a full-width horizontal slot about two-thirds of the way up, and in this slot is a wing section, also made from spinnaker nylon, that fills with wind when the Parasailor is hoisted.

The idea is that the wing provides lift, just like the wing of a paraglider or kite-surfer. Whereas a conventional spinnaker tends to push the bow down, encouraging yawing, broaching and nose-diving in fresh conditions, the wing in the Parasailor creates an upward force. On a typical 33ft (10m) boat, this lift is said to equate to the difference between having an 80kg (175lb) man on the foredeck and moving him back to the cockpit. The wing is also claimed to stabilise the sail, by reducing its tendency to stall and by smoothing out the pressure zones in its lee that can move erratically and contribute to the dreaded death-roll.

Using a Parasailor should help just as much on a reach, the lift acting to reduce heel and allowing you to sail higher in more wind. Should you overcook it, or your trimmers lose attention, the Parasailor is less prone to collapsing because the air-filled wing acts rather like a full-length batten, helping to keep it in shape. With a normal spinnaker, the luff starts to curl and then, unless you respond pretty smartly, the whole

sail collapses before starting to flog. When it fills again, the resulting bang can shake the whole boat and put enormous strain on the rig. It's one of the most common ways of blowing the spinnaker out.

In theory, a Parasailor is much more tolerant. The luff will still curl as you sail too high, but only some of the air-chambers in the wing deflate – usually the rest will remain full. As you trim in or bear away, the deflated air-chambers re-inflate, gently popping the sail back into shape.

Another benefit of the wing's lifting and stabilising effect is that it helps to hold the sail open on a run, so you don't need to use a pole (which will still help on a reach, however). No pole means less equipment and fewer people, and you can gybe simply by altering course. There's less chance of wrapping it around the forestay, too.

The list goes on. Should you get

hit by a sudden gust, the slot acts as a pressure-release valve to reduce the loadings. The Parasailor has been tested in a wind-tunnel in 50 knots with no ill effects.

### Ups and downs

So, what's the bad news? If this sail is so wonderful, why isn't everybody using one?

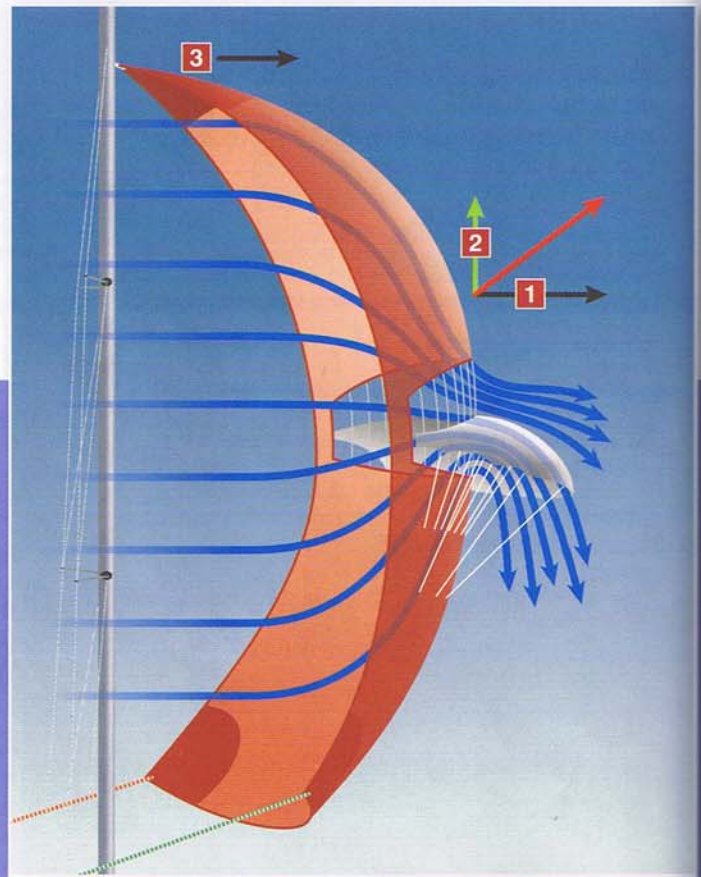
First, it doesn't lend itself to round-the-cans racing. One reason is that it works better on its own, without the mainsail; the other, that

the labyrinth of lines supporting the wing section would be prone to snagging in the rigging and on deck if the sail were used without a snuffer – and snuffers are far too clumsy and time-consuming for short-leg racing. The Parasailor was designed for, and is best suited to, cruising sailors flying it on long downwind legs.

Inevitably, the complexity of the Parasailor makes it heavier than a conventional spinnaker. As a result, it doesn't fly as well in true

### Sail with a slot

Air flowing over the wing creates forward motion (1) and lift (2) while reducing the horizontal force at the head (3).

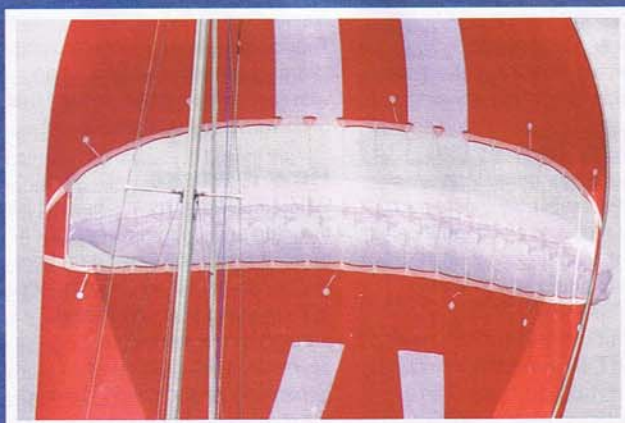


## Parasailor or Parasail?

Despite the similarity in name, the Parasailor and Parasail are different designs that were made by different companies. The latter used a single-layer (non-inflating) wing. Now the two companies have joined forces to share design technology and will offer whichever sail is most appropriate for a particular size and type of boat.



A complex web of lines supports the wing at the correct angle, yet the loads induce no distortion in the sail



Telltales show the air flowing into the slot, down from the top of the Parasailor and up from the bottom





