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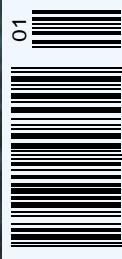
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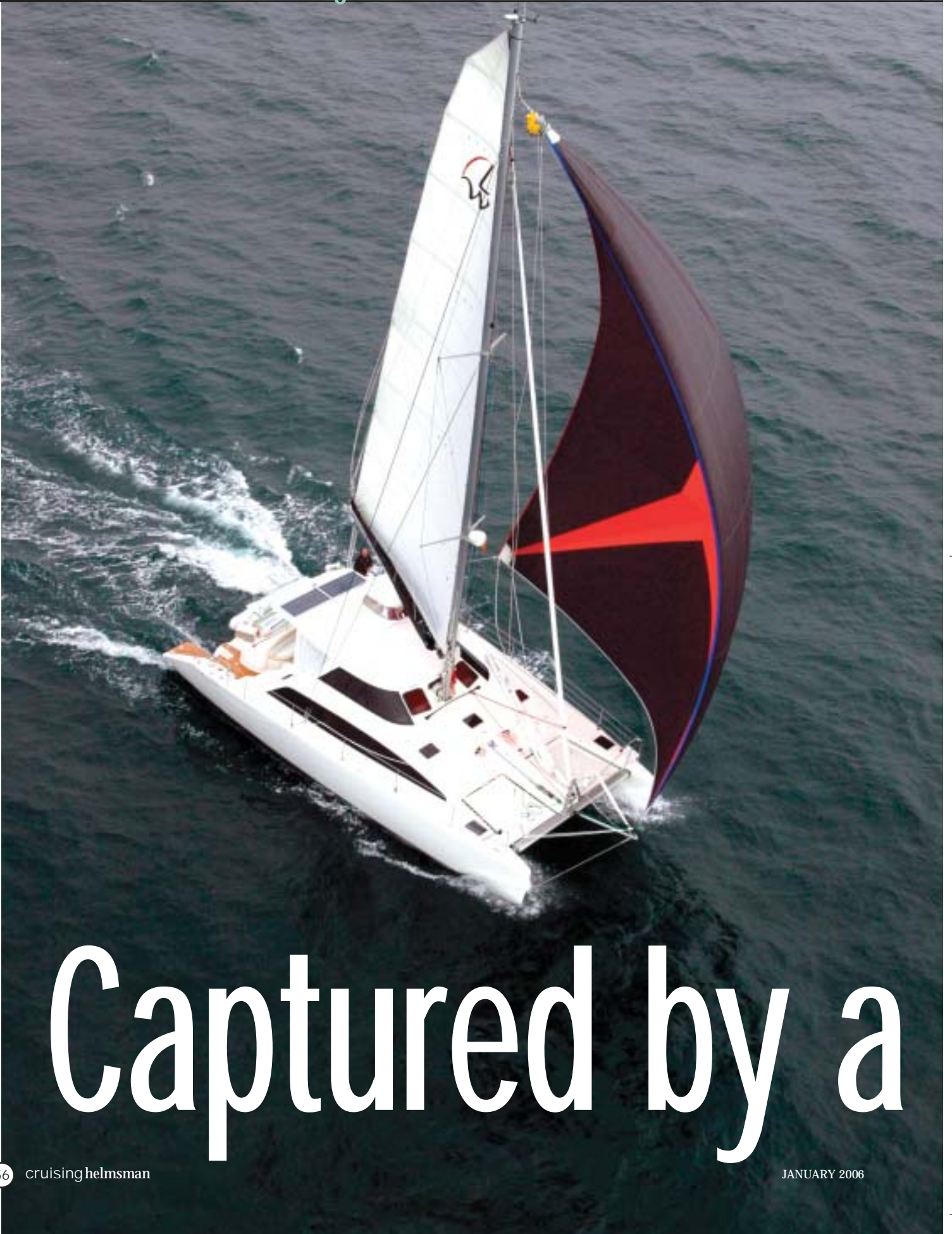
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New Boats: **Lightwave 45**



Captured by a

Elegant, efficient and seakindly were among the must-haves in the design brief for the new Lightwave 45. How well does it achieve them? Caroline Strainig reports on the latest offering from the Gold Coast-based Lightwave stable.

When it comes to catamarans, there's one name that springs immediately to mind when you start talking Australian designers: the renowned Tony Grainger.

The Lightwave 45 Sports Cruiser is his latest creation. Built by Roger Overell and the team at Lightwave Yachts on the Gold Coast, it is a successor to the popular Lightwave 35 and 38.

Overell describes the 45 as "an awesome bluewater cruiser". "The design emphasis is on elegant, efficient, seakindly hulls and ample

bridgedeck clearance," he said.

Okay, so he's selling the boat.

But even at a quick glance it is a good-looking catamaran and the specs would seem to point to bluewater capabilities, so there could be more than just a modicum of truth in his superlatives. What does an in-depth look reveal?

First impressions

One of the most important aspects of getting someone to part with their hard-earned cash is that look-at-me quality and the 45 has it,

at least as far as I'm concerned. My first impressions were of curvaceous lines and a raked, speed-promising mast and acres of image-evoking glossy white gelcoat that just made me want to sail off into the sunset. Nothing in her looks stood out jarringly as out of place or needing obvious modification.

Sail plan

Like most catamarans, the 45 has a fractional rig (7/8) with twin swept-back spreaders and a large main with a big roach. The sloping mast and



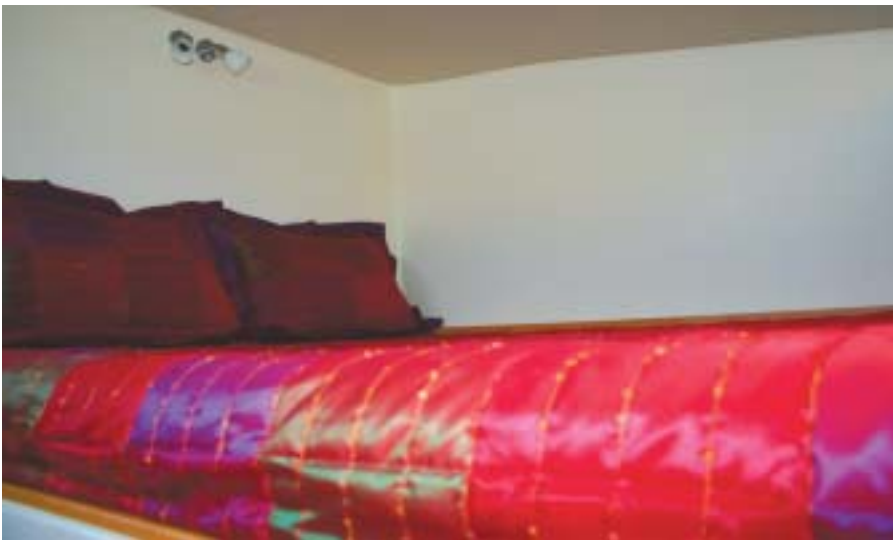
LEFT: Flying along under spinnaker power.
ABOVE: A V-shaped table that slides out slightly so you can walk around behind it when needed is a feature of the saloon, which has panoramic views.
RIGHT: Looking aft from the foredeck – white gelcoat and hatches proliferate.



Lightwave



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large roach help bring the effort of lateral resistance aft and keep the mast step forward of the bridgedeck saloon.

Complementing the mainsail are a lazyjack boom bag, small self-tacking jib on self-furler, large screecher on self-furler and an asymmetrical spinnaker. The screecher and spinnaker are optional extras.

Because this is a catamaran and has room for a long traveller across the aft side of the cockpit, there is no boomvang, the theory being that the long traveller is enough in itself to ensure adequate downward force on the boom on all points of sail.

On the test boat halyards and both reefing lines ended at an Anderson 46

two-speed self-tailing winch on the mast, and the main halyard was rigged via a snatchblock to the anchor capstan.

However, as an optional extra Lightwave can install a dedicated electric halyard and reefing-line winch in front of the helm position, allowing one person to hoist as well as reef the mainsail from the comfort of the helm position.

Port and starboard to stern are two pairs of 52 and 46 Anderson two-speed self-tailing winches for screecher and spinnaker sheets. Another Anderson 28 two-speed self-tailing winch does duty for traveller adjustment.

Sails are by GM Sails. The main and jib are a Dacron mix of offshore quality and the screecher tri-radial Mylar.



ABOVE: Another plus is a large covered cockpit, ideal for all weather conditions.

ABOVE FAR LEFT: Nav station has a lollipop seat. Visibility is so good from inside that I'd swap this for a comfortable swivel armchair so you could stand watch inside when you felt like it.

ABOVE LEFT: The aft starboard cabin has a fold-down upper single berth and a single or double below it.

LEFT: The master cabin sports an athwartships or centreline queen-sized berth.

Cockpit and deck

No catamaran would be complete without a large cockpit, and the Lightwave 45 is no exception. Every inch yells "Party!". No wonder everyone congregates on these boats at sailaways.

Aft is a full-width seat for up to six. This is home to two large lazarettes and the afore-mentioned traveller. An L-shaped seat that would fit up to three is in the forward starboard side of the cockpit abutting the door to the saloon. Underneath is a vented locker for two full-sized gas bottles.

On the port side forward is the steering station, up two steps. This has a double seat with footrest that folds up or down so you can sit or stand comfortably. Instruments include a Suunto compass, Raymarine autopilot, Raymarine ST60 depth, speed and wind. The steering station has a hard top over it



with clears that can be unzipped and folded up. Underneath is a combination 90L fridge/freezer.

A table fits in the starboard side of the cockpit adjacent to the helm position and companionway. This was not fitted on the demonstration boat but comes as standard.

Abutting the almost-full-width seat aft is a large platform where the dinghy lives and a 400kg crane for launching and retrieving. These are optional extras.

The cockpit floor is a cork composite called Marine Deck 2000. My first choice would be easy-care non-slip fibreglass, but this man-made material did look good and is reportedly tough.

On the starboard transom you'll find a hot and cold shower and swimming ladder and just forward of these under each hull a 75hp Volvo saildrive with four-blade folding prop (40s are standard). Access to the port one is phenomenal, but the starboard is compromised by an aft cabin – a problem that could be fixed by sacrificing some walk-in space in the said cabin.

Heading forward, there is a side deck and an intermediate deck, the latter accessed up steps from aft and forward. The shrouds are mid-deck on the side deck and easily navigated.

Hatches and fixed ports abound – I lost track at seven opening hatches and six fixed ports.

Twin trampolines have pride of place on the foredeck, complemented by pulpit seats to port and starboard big enough for two. Some 75m of 10mm chain and a 60lb plough live in the deepish anchor locker, adjacent to which is a Muir 2250 capstan.

The cabin top extends back into a three-section top over the cockpit, the first two sections hard and the aftmost soft. The soft section is home to two 120W solar panels.

Saloon and hulls

The saloon has panoramic views and is a great space from which to watch the world go by.

The focal point is the large,



ABOVE: Builder Roger Overell (left) explains the battery set-up.

L-shaped settee, which has a nifty V-shaped table that slides forward so you can walk around it and then pull it in when seated.

The batteries live under the settee and had the technical-minded males among us drooling. As standard you get seven identical Vision 100 amp-hour AGM sealed batteries (six in the house bank and one for engine starting), a Volvo standard 115-amp alternator on each engine and a single Ample Power Next Step three-stage regulator.

The nav/entertainment station is to port as you enter and boasts TV, DVD, CD player and chartplotter, among other gizmos. It's really up to you what goes there as most are optional extras. A window/hatch opens directly out to the helm station so the helmsperson can see the chartplotter and VHF radio.

In the port hull the test boat had aft a toilet with separate shower compartment and Vacu-flush electric toilet, midships an office and stowage, forward a master cabin with queen-sized berth and make-up table and hanging clothes rack.

The starboard hull had aft a small cabin with adjustable beds that

FIRST ONE OUT OF THE MOULD

The test boat was the first 45, and as with almost all production boats, minor tweaks will be made as the builder fine-tunes things. In this case new moulds were made for the hulls, but some of the furniture and hard-top moulds were recycled from the Lightwave 35 and 38. This is a common practice, and there is nothing wrong with it if it doesn't compromise the design, and in this case it appears to have worked well. The only obvious exception was the hard top over the cockpit, which had been extended with a soft-top, making it difficult to get out to the end of the boom. However, I understand a new mould is already in the pipeline and future 45s will sport a one-piece hard top. This will also provide a better platform for the solar panels, plus better access to the end of the boom for emergency securing.



New Boats: Lightwave 45

could sleep up to three, midships a galley with three-burner stove with microwave and 150L upright 12V fridge, forward a queen-sized guest berth and in the bow a small head/shower with electric toilet.

Both toilets have plastic holding tanks and are vented outboard. The Vacu-flush one uses fresh water (only 400ml a flush though), which helps prevent odour.

Under the hull floors are tanks for a generous 800L of fuel and 600L of water, plus an in-floor stowage compartment for gear in the port hull.

Stowage overall is reasonable for such a boat, with plenty of shelves and nooks and crannies. As in most production boats, a few more fiddles and grabrails would not go astray.

Décor is a mixture of beech timber and beige headliner and an attractive linoleum/carpet that complements the timberwork.

Numerous hatches, ports and lights ensure good ventilation and a bright, light feeling. Most windows and the sliding doors are screened, but curtains/blinds are optional extras.

BELOW: A three-burner gas stove with a microwave under it has pride of place in the galley.
RIGHT: Overell adjusts sail trim.



A WORD ON BRIDGEDECK CLEARANCE

Many experts advise that a catamaran should have a bridgedeck clearance – that's the distance between the underside of the hull and the water – of 850mm for offshore cruising so waves don't slam up underneath. In reality, few achieve this, particularly when loaded up with all the gear needed for passage-making. The test boat had the optional larger 75hp engines, but even with the extra weight, still measured an impressive 870mm when we got the tape out. If you'd like to know more about this topic, there was an excellent article that included some information on it in our June 2005 multihull feature, "The hunt for Sub-zero". Send us a SAE if you'd like a copy.

Construction

Lightwave uses standard modern GRP foam-sandwich construction methods and offers a five-year structural warranty. Fittings and fixtures are as per their manufacturer's warranty, which is normally 12 months.

Performance

Twenty-plus people aboard, many of them keen to help, is not a recipe for smooth teamwork, but even with the inevitable hiccups and extra 1500kg or so, the 45 did not disgrace herself.

On the wind in 13 knots true, pointing at 40-45° the small self-tacking jib meant sail area was a bit on the conservative side and she clocked only six

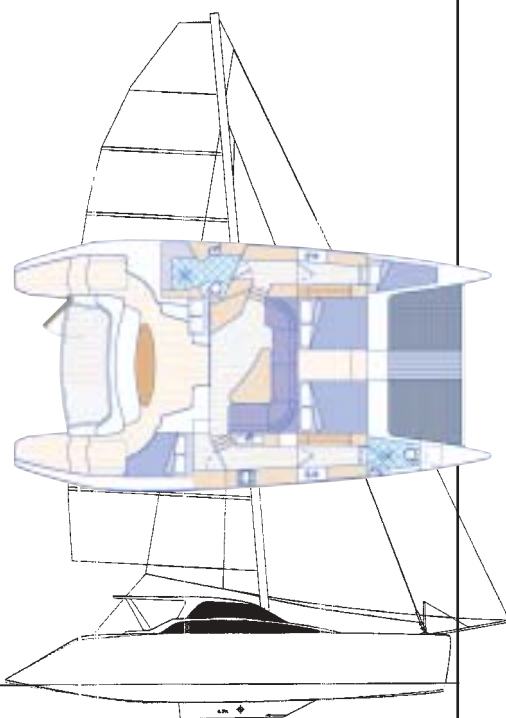
knots. However, as soon as you headed off to 60° and hoisted the screecher the picture changed dramatically and the log quickly climbed to 9.3-9.4 knots.

Overell said on a previous test sail – half laden and with only three crew aboard – speed and pointing were much more impressive, achieving 8.25 knots of boat speed at 35° apparent in 15 knots of true wind, and 16.5 knots at 60° in 22 knots true.



SPECIFICATIONS

LOA	13.7m
BOA	7.3m
Headroom throughout:	1.95m
Bridgedeck clearance (DWL):	0.95m
Keel draught:	1.2m
Std mast height:	18.5m
Sails by:	GM Sails
Sail area:	
Main:	74 m2
Self-tacking jib:	30 m2
Genoa (if supplied):	41m2
Small screecher (if supplied):	55 m2
Large screecher (if supplied):	70 m2
Spinnaker (if supplied):	154 m2
Disp. lightship:	6500kg
Disp. DWL:	9500kg
Length-to-beam ratio	
(of each hull):	11.5:1
Displacement/	
waterline length:	13.3 488:1 lightship
SA/displacement:	5:1 1:62.5 lightship
Engine:	two x 40hp Volvos
Fuel capacity:	800L
Freshwater capacity:	600L
Price, boat as tested:	\$845,000.
Base boat from:	\$750,000
Delivery time:	Eight-10 months
from time of order	
Builder:	Lightwave Yachts,
Gold Coast Marine Centre	
200 Beattie Road, Coomera Qld 4209,	
ph (07) 5556 0030, email	
mail@lightwaveyachts.com, website	
www.lightwaveyachts.com	



The basic sail plan is deliberately conservative, which makes sense. Most boats are sailed by couples, many relatively novice. If you were a gung-ho, very experienced sailor and wanted to improve windward performance in light winds, all you'd have to do is axe the easy-to-handle self-tacking jib in favour of a 120-130-percent genoa.

Daggerboards are another available option that would boost upwind performance; twin bilge keels are standard. Both configurations allow you to beach the boat if needed.

In practice the sail plan on the test boat worked well. Having a self-tacking jib meant we could virtually forget about it once unfurled. The screecher did have to be tacked or gybed, but backwinding it slightly before pulling it in enabled us to feed it through the slot in front of the headsail forestay without hassle.

The helm station was comfortable

sitting or standing and visibility good, although sometimes the sails did obscure one's view at a particular angle and you had to step away to a spot where you could see from or head away so you could see what was behind the sails.

Under motor the 75hp sail-drives had us zooming along at a rapid rate. The Broadwater's speed limit meant we couldn't open the throttles up, but for the optional 75hp engines Overell quoted figures of 9.6 knots at 2500rpm and 11.5 at 3000rpm.

Summary

This is one of the best cats I have seen. Number one out of the mould is a good vessel in its own right, but with a full hard-top bimini and optioned up to include the halyard and reefing lines led back to a power winch at the helm, it would be an even more impressive yacht.

MacGregor 26m



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