

review

Silent Yacht 55

WORDS BY **KEVIN GREEN**
PHOTOGRAPHY BY
KEVIN GREEN AND SUPPLIED



SILENCE IS GOLDEN



Solar cell development is a moving at pace which is creating more uses for it, something Silent Yachts company founder Michael Köhler is acutely aware of. After many years of voyaging on conventional power boats it led him and wife Heike to build their first electric prototype which they sailed for five years and 15,000nm before founding the company and constructing their first production Solarwave 46 in 2009. She was the first renewable-powered blue-water catamaran.

I first met the Köhlers in 2017 when they arrived at La Grande Motte boat show with the Silent 64, which I took out for sea trials. I recall gliding along on the Mediterranean at 10 knots while the twin electric motors hummed quietly, consuming 64 kilowatts, before we throttled back to a cruising speed of 6.6 knots for a more sustainable consumption of 31 kilowatts. I steered with a Raymarine autopilot dial and the twin throttles (but a conventional wheel clips into place for traditionalists).

The latest boat, the Silent 55, has advanced substantially from the 64, especially with the developments in much more powerful lithium batteries. Along with the Silent 55 and the Silent 64, the other models in the range are the Silent 55 VIP Ferry and the upcoming Silent 79.

The solar-powered Silent 55 catamaran is successfully pioneering renewable power in a quality and seaworthy design.

Solar power comes from 30 panels rated for approximately 10kW-peak output...



THE ELECTRIC PROPOSITION

The Silent Yachts proposition to buyers is that their systems require hardly any maintenance and produce no fumes or noise so the operational costs are substantially lower compared to power yachts using more traditional propulsion systems. This Silent 55 cruises in the remote Mergui Archipelago in Myanmar during winters so has to be self-sufficient.

The company offers several varieties of its vessels, including sailing versions, kite-powered versions, electric ones and a hybrid model. Our review boat was the electric version with upgraded 2 x 135kW motors that achieve 14 knots and a large optional diesel generator.

At first glance the Silent 55 looks like many other power catamarans – a tall flybridge above a large squared-off saloon and spacious lounge decks fore and





ABOVE Bright, open spaces with large windows.

OPPOSITE A hefty array of solar panels helps to keep the cat powered up.




aft. Looking closer revealed the reason for the large topside structures – these areas host the solar panels.

The overall shape is fairly sleek and low-slung to reduce windage. But to maximise the extensive inside space requires upright topsides and squared bulkheads in the saloon which somewhat compromises the aesthetics. So it doesn't have the smooth curves of a Tesla electric car but, like these vehicles what counts is under the hood.


Solar power comes from 30 panels rated for approximately 10 kilowatt-peak output, controlled by a smart solar regulator – a maximum power point tracking (MPPT) unit that controls the energy going into the lithium batteries, giving stored power for night-time cruising while a 15kVa inverter provides DC/AC power for all household appliances.

"What this represents to the yachtsman, among other features, is the ability to cruise for many hours at normal speed and throughout the entire day and evening at reduced speed," says Köhler.


YAMAHA
Revs Your Heart


Ovlov Marine Ltd


Yamaha in the City

**NEW
XTO
OFFSHORE
425HP
5.6L
V8 FULLY
INTEGRATED
POWER SYSTEM**


Ovlov Marine Ltd

- A parts team ensuring quick response & parts dispatch.
- Full workshop with eleven mobile vans.
- Genuine Yamaha parts.




BUY THE WORLD'S MOST POPULAR OUTBOARD



- Reputation
- Reliability

- Voted NZ's most trusted marine engine 2017-2018
- Get the 4-stroke advantage

THE REASONS ARE SIMPLE:

- Choice of 2 – 425hp
- Performance - Perfect blend of Speed, Smoothness and Quietness

Ovlov Marine Ltd
Established 1978

Ph 09 377 4285 Fax 09 377 9665
 142 Beaumont Street, Westhaven

Email: info@ovlov.co.nz
www.ovlov.co.nz






No appreciable sound came from the motors, prompting me to go below for a look at them.

pier21
MARINE CENTRE



- **50 tonne Travelift**
- **All trades available on-site or D.I.Y.**
- **Drystacks • Marina**

15 Westhaven Drive • ph 0-9-374 4461
email info@pier21.co.nz
www.pier21.co.nz



GLOSS BOATS®

MARINE SPRAYING

PIER 21 ON-SITE PAINTERS

- Complete repaints
- Topsides
- Coamings
- Decks
- Polishing
- Varnishing
- Masts
- Touch ups
- Antifouling
- Propspeed

136 Beaumont Street,
Westhaven, Pier 21.
Ph: 0800 456 772
info@glossboats.co.nz
glossboats.co.nz



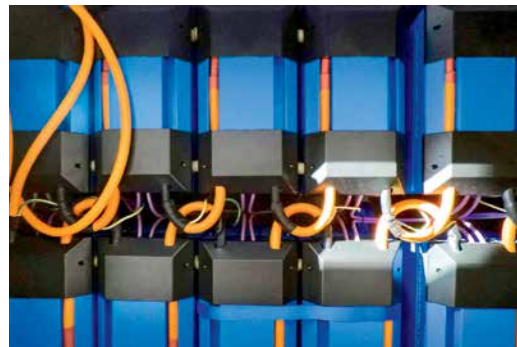
APARTMENT-STYLE SALOON

Cruising catamarans attract buyers for their comfort and stability. The two hulls allow them to carry heavy loads and of course contain a lot of living spaces. Looking around the Silent 55, it doesn't disappoint in any of these areas.

Walking inside from the sheltered aft deck reveals a spacious saloon to me with galley at the doorway, dinette on the forward port quarter and steering console opposite. Ahead is a deck level owner's suite, an unusual feature; and up to six cabins can be optioned on the Silent 55.

The U-shaped galley on the portside comprises a deep sink, electric cooktop, dishwasher and worktop space nearby on the starboard side as well, making it an effective cooking space with lots of cupboards; ideal for those blue-water voyages. Refrigeration consumes the most energy on yachts but is an essential so there's a drawer fridge; in addition our review boat had a large upright household fridge.

The other big consumer is air-conditioning which is a 50,000 BTU



OPPOSITE & ABOVE As with a conventional cat, the appeal is in the expansive spaces.

LEFT The neat electric motor installation and its supporting power supply.



www.nzboatsales.com



SILENT-YACHTS

*The All New
SILENT Sensation*

Steve Thomas - NZ Boat Sales
56 Vickerman Street, Nelson
Free Phone 0508 42 62 87 • Mob 0274 459197
stevethomas@nzboatsales.com

Proud NZ distributors for Silent Yachts

Recognised member

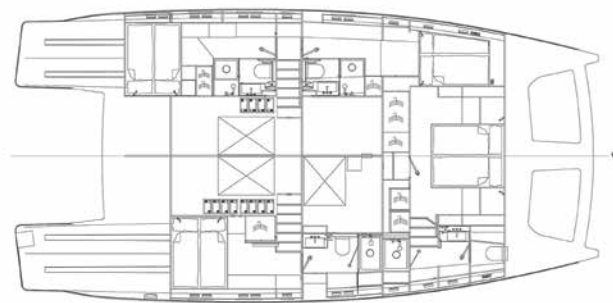




2019 UPGRADE TO SILENT YACHT 55

The Cannes 2019 Boat Show saw the arrival of an upgraded Silent 55. Key improvements include higher-powered 250kW motors as standard and increased stored power (210kWh batteries compared with 70kWh).

More efficiencies have been found through a redesigned drive-train that minimises friction and reduces mechanical noise. Following customer feedback some interior design improvements have also been made, says Köhler. "We did these updates and changes because we always try to improve and to install the best and latest technology available to satisfy our clients. We have built one new Silent 55 already and we've got three more orders for this model, which shows that we're heading the right direction".

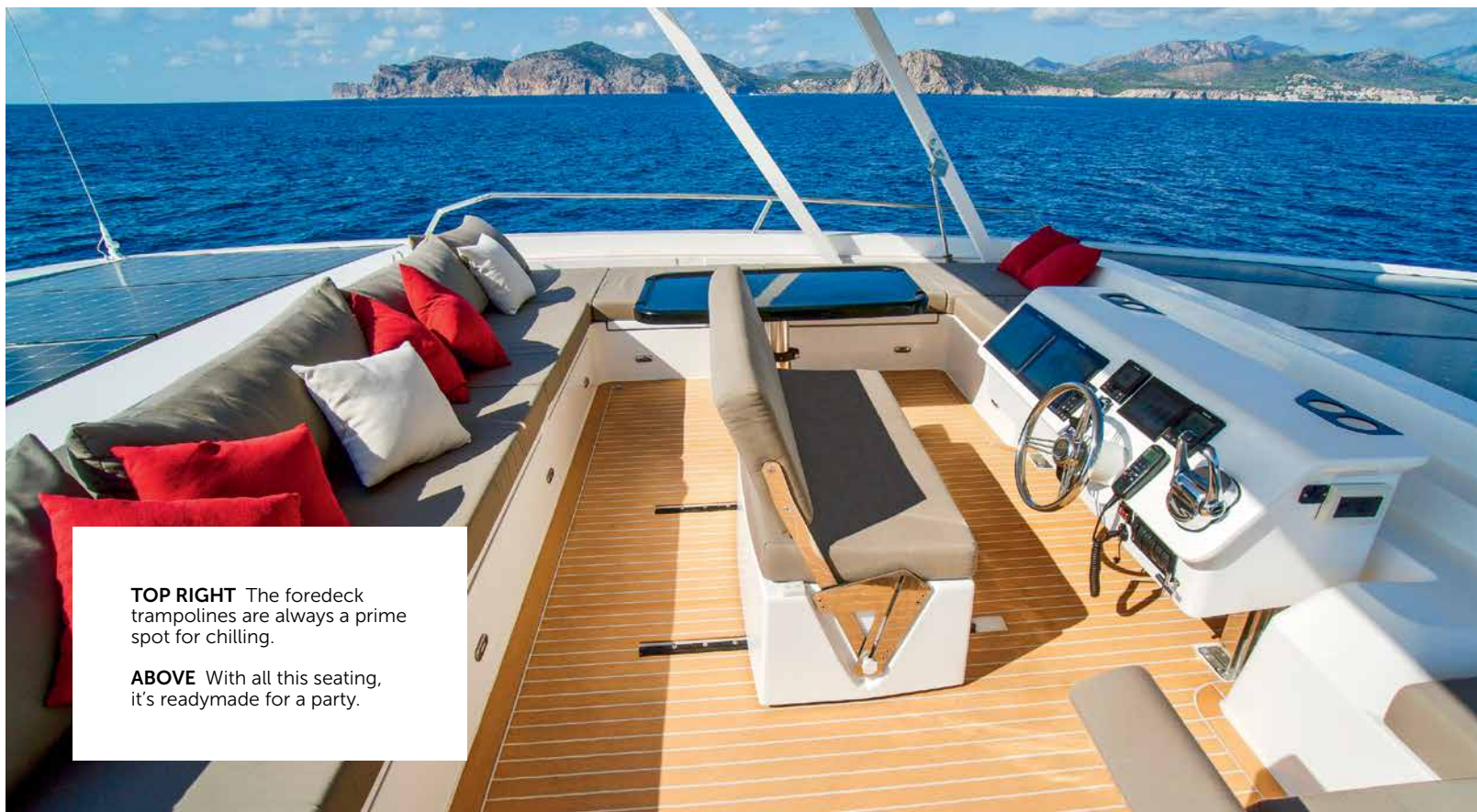


SILENT 55
Cabins 4/4
(several other options available)

reverse cycle unit on the Silent 55 – it heats as well as cools. Most usefully, there's a water-maker powered by the solar-electric system, which produces 100l/per hour, so enough to supply a boat load of passengers. Other good galley features include a sliding window that opens aft to the outside dinette area.

Moving to the middle of the saloon takes me to another set of large cupboards that also houses the retractable television; ideal for viewing from the dinette which has an adjustable table (making it a day bed) and surrounded on two sides by settee space. A step up on the starboard quarter is the navigation station which offers clear views all around and has a steering wheel with two seats.

An array of Raymarine instrumentation controls the Silent 55, including the essential autopilot. The main controls are the throttles and beside them two joysticks for the Lewmar 10kW thrusters located in each hull. The other essential screen is the small power consumption one which uses simple bar charts to show usage.



TOP RIGHT The foredeck trampolines are always a prime spot for chilling.

ABOVE With all this seating, it's ready-made for a party.



DECK CABIN

Three of the Silent 55 layouts have a forward owner's stateroom that capitalizes on the 8.46m beam for a spacious layout with a walkaround double berth. Stepping in here from the saloon reminds me of a superyacht I was recently on, such is the space and airiness of this owner's suite.

The advantages of deck level accommodation are many: all round windows that avoid the claustrophobia some guests feel while in the hulls, close proximity to the helm so the owner can quickly check on navigation and on the Silent 55 the ablutions are extensive.

Located in the starboard hull, down a few steps, the bathroom uses a large part of the hull on each side of these stairs. At the rear is a shower cubicle while up front there's a sink – an interesting bamboo unit with head in the forepeak. The guests enjoy a longitudinal VIP cabin on the starboard side and two other generously proportioned doubles in the port side; all with ensuite bathrooms.

These wide hulls allow beds to run athwartships, so use the entire beam of each hull while also saving floor space in the cabins. Joinery and finish is outstanding throughout the inside as well on the Silent 55, reflecting the hand-built approach.

FLYBRIDGE & DECKS

From the aft deck a ladder leads me up to the flybridge where there's a lounge and wide helm seats with small table to port. Handily, the helm seats flip to create a convivial seating area. The helm echoes all the controls from the main console, so includes

the twin throttles, thrusters and autopilot but the views are clearer all round.

The flybridge fibreglass roof shades the entire topside and, cleverly, is movable with sturdy stainless struts allowing it to pivot fore and aft. By doing this it can also seal the entire flybridge, making it weatherproof, reducing windage and maximising the solar arrays. Solar arrays cover the roof, the area aft of the flybridge and the saloon roof.

Having solar on my own yacht, one early learning experience I found was to keep them immaculately clean from even dust and light grime if maximum performance is to be attained. So bird poo is a major challenge in many parts of the world.

Back on deck, man-made teak under foot gave good grip as I sat at the aft saloon to enjoy alfresco views and easy access to the sea via the moulded steps. Between each hull the dinghy is slung high and clear of the water but is easily launched for that run ashore. Moving forward, the wide decks and high safety rails reassured me.

I found yet another unusual feature midway along the saloon side where a two-seater lounge seat is indented. At the bows yet more lounge space was available in a sunken bulkhead between the trampolines and in sunbeds above this on the saloon roof. The centre spine of the Silent 55 contained a 1500-watt windlass with capstan which has a 30kg anchor and 100m of galvanised chain.

BUILD AND SYSTEMS

Catamaran performance depends on some key design features, notably the hull volume that allows loads to be carried and the clearance beneath the bridgedeck. The optimum bridgedeck height clears the waves without compromising stability, so at 1.0m unloaded the Silent 55 has reasonable clearance.

The overall hull shape, with fine entry allowing good windward performance and volume aft for the main cabins also looked seaworthy. Designed with sealed deck sections and collision compartments for safety, it uses watertight bulkheads and integrated interior furniture to create a stiff hull structure.

The Silent 55 is built using vacuum-bagged resin infusion to create a lightweight glass-sandwich composite construction hull, reinforced with carbon fibre at stress points, and uses vinylester resin to prevent osmosis blistering. Our review boat was hull number five, and several others were in production back at the yard in Austria.

Looking at the main systems, stored power is in 28 lithium Victron batteries (weighing 800kg and producing 140kW/hours). "These latest batteries are about 40% cheaper than the ones we fitted to the Silent 64," says Köhler.

These are charged by the 32 solar panels, outputting 370watt each (total theoretical output 11,840watts). Panel size is 1.5m by 1.0m – all neatly integrated in to the superstructure of the Silent 55 and are marinised. The electrical system can support a powered swim platform and allow the thrusters to be run off the batteries (with the generator).

SAILING THE MEDITERRANEAN

Leaving the Cannes dock was without drama, thanks to the thrusters on each hull pushing the 17-ton catamaran sideways before we silently moved ahead and through the busy Vieux Port. Sitting alongside Köhler on the wide flybridge seating the views were clear forward, allowing us to safely reach the open sea where our speed increased from 3 to 6.3 knots. The engine gauges showed us consuming 28 kilowatts while incoming power from the panels was listed at 1.3 kilowatts due to the cloudy day.

STOP PRESS!



The NEW Silent 44 arrives mid-2020

SPECIFICATIONS

Loa 13.4m

Beam 7.2m

Draft 0.75m

Light displacement 11 tons

Water 250 litres

Wastewater 250 litres

Fuel 250 – 500 litres

Solar 9,000Wh

E-Motors 2 x 30kW / 2 x 80kW

Generator 22 kW / 100 kW

Cruise Speed 6–8kt / 6–10kt

Top Speed approx. 12 kt / 15 kt

CE Certification A

No appreciable sound came from the motors, prompting me to go below for a look at them. Opening the engine hatch revealed the UQM motor – similar to those used in forklifts – and it emitted a humming sound about as loud as an average human voice; 50 decibels.

The American UQM company supplies a significant part of the electric marine sector and claims the mantle for the world's highest powered electric outboard (180hp). With a background in the automotive industry, powering a fleet of BMW E1 electric vehicles for California and the GM Precept Hybrid car are among many other UQM projects.

Back on the flybridge I took over the steering and pushed the throttles down and watched our speed increase to 10 knots, with consumption at 80 kilowatts, and no vibration felt throughout the hull. At this rate, and combined with the dull day, our batteries were discharging so to combat this the optional 100kW Volvo generator is programmed to kick-in to add amps to the system when batteries fall to 30%.

But in sunny weather, running at 5 knots, the Silent 55 can do 100 miles daily. The hydraulic steering wheel felt heavy, something that the company was going to rectify, as it consumes more energy from the autopilot. But turning the wide catamaran was done easily, as it gently glided around; with no smoke or noise. All I could hear was the water streaming past the fibreglass hulls and the feel of the wind on my face. **BNZ**



Silent Yacht 55

PACKAGES FROM
\$2.52 million

CONCEPT & INNOVATION
Michael Köhler

MANUFACTURED BY
Silent Yachts
www.silent-yachts.com

HIGHLIGHTS

The silence –
it's almost eerily quiet

Multiple areas
for relaxing

Quality finishes
– she's a gem

SPECIFICATIONS

Loa 16.70m

LoI 16.52 m

Beam 8.46m

Displacement light 17,200kg

Draft 0.64m

Bridgedeck height 1.00m

Engine std 2 x Kräutler turnable saildrives, 30kW electric motors, bronze-prop, 70 kWh lithium battery.

Engine option (with generator) 2 x 250kW or 135kW e-motors on shafts and 100kW Volvo D3 diesel generator.

Solar generation 9,000-watt peak capacity

Fuel 300 l (diesel for generator)

Water 500 l (option 1,000)

Waste-Water 2 x 500 l

CE Certification A Ocean

Cruising speed 12 knots

Top speed up to 20 knots

