

ALLOY BOAT WITH GRP HEART

*Innovative hull-in-hull design
delivers best of both worlds.*

Text by Mike Rose



While the advantages of aluminium are many, there is also much to like about GRP, especially when it comes to a boat's interior. A GRP interior is easier to clean, quieter and better looking than an aluminium one. It is also warmer in winter and cooler to stand on in summer.

Why not combine the two? Well, because....

When Ultimate Boats' Mark Presnall asked himself that question, he realised there actually weren't any good reasons not to do exactly that. In fact, Mark, who had founded Ultimate Boats in September last year with a desire to combine alloy's ruggedness with GRP's good looks, is not the first to seriously consider such an amalgamation.

Dunedin alloy boat manufacturer LazerCraft released a range of alloy/GRP hybrids around 20 years ago. They featured an alloy hull with a GRP cabin top and were initially quite popular.

But Mark had no desire to simply follow in those footsteps. Instead, his idea was both radically different and highly innovative: to design a hull-in-hull vessel with an alloy outer skin and a GRP liner.

Now he has not only designed it, he has built it as well.

The Ultimate 21 Elite has an alloy space frame, hull and cabin combined with a full GRP liner and, as Mark explains, the benefits are many:

"The first is additional safety. The hull-in-hull technology means any

frontal or side-on impact would need to penetrate through two strong and rigid skins before it compromised the boat's ability to remain afloat," he says.

"Additional benefits are quietness, warmth, soft ride, weight distribution and stability, along with a seamless, high quality and easy care finish inside."

He believes the sleeker, more attractive look of the GRP is also a big plus.

"Wives, partners and families play a big part in whether to buy a particular boat or not," he says. "While many Kiwi blokes are

prepared to settle for a workman-like interior and hard corners, in my experience, women often are not."

While it is easy to see the immediate appeal of such a boat within a boat, surely the cost of doing it must be prohibitive?

"Not so," says Mark. "Because the interior liner can be moulded at the same time the hull is being built, the boats are quite a lot quicker to build."

Of course the liner mould is not cheap to create and will need to be

amortized effectively over a reasonable number of vessels. That said, the difference between an all-alloy Ultimate 21 and the new alloy/GRP Elite is surprisingly small: the innovative version is around just 4% extra.

While the cost difference is small, the benefits, by contrast, are substantial. For a start, a good part of the GRP's weight is below the waterline, making the boat more stable and enhancing its performance in rougher seas. That weight is also widely distributed,

▼ The standard outboard for both the Ultimate 21 and its new Elite counterpart is a Mercury 150hp 4-stroke outboard.

▼ The Ultimate 21 Elite is a good looking boat on the trailer.



The live bait tank is positioned under the step to the transom.



▲ A pair of Waeco Cool-Ice moveable chiller box seats that can be positioned anywhere in the cockpit.

reducing stress on the keel line.

Then there is the cavity between the two hulls. This acts as an insulating barrier — reducing noise and providing warmth — and, thanks to its inherent buoyancy, another level of safety.

The liner is a substantial structure, too, disappearing out of sight under the coamings and boasting 3mm sides and a very strong 12mm floor. It employs a specially developed full bonding process, sealed to the sides and the alloy hull's bearers and is secured by a combination of rivets and adhesives.

VERY ATTRACTIVE INTERIOR

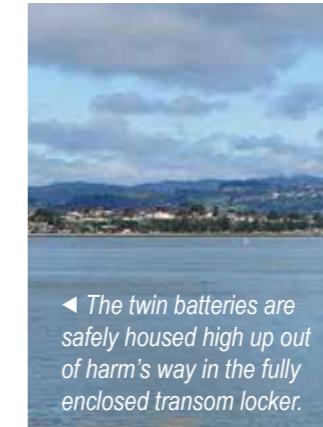
While, like its all-alloy predecessor, the Elite boasts attractive lines and an immaculate finish on its double axle Enduro trailer, it is the interior that really catches the eye. Lining the side decks and the cockpit floor are CNC-cut panels of SeaGuard anti-skid. Light grey, easy to clean and smart-looking, it is very comfortable to stand on

and much cooler in summer (and warmer in winter) than traditional mat coverings or bare alloy. The panels also provide a nice accent for the Elite's onboard colour scheme, a smart contrast between the gleaming white of the GRP liner and the deep black of the helm surrounds, the hardtop frontrunner lining and the powder coated side lockers and rod holders.

The black/white theme continues with the twin bolster seats on their Softrider pedestals and another design accent is provided by the new stainless steel handgrips: one above the cabin entrance and the other on port for the passenger.

For those familiar with the original Ultimate 21, the main changes are the hardtop hatches (which used to open sideways and now open forward to ensure better air flow on hot days) and the slightly smaller fuel tank, now reduced to 150 litres to accommodate the liner but still capable of delivering 10 hours running.

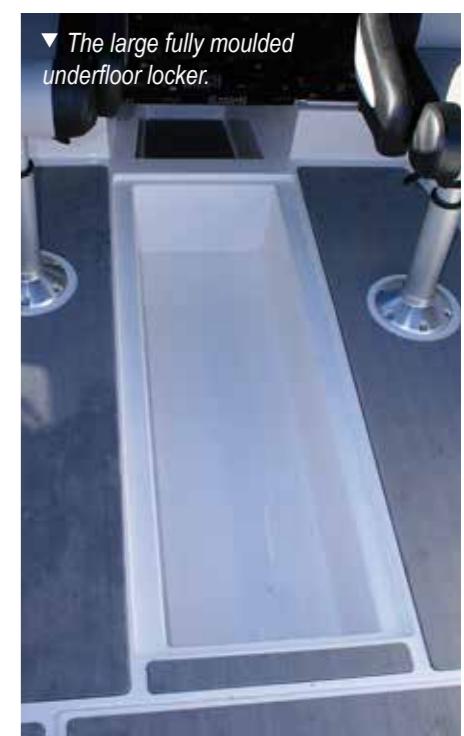
The pride of place on the dash is occupied by the Garmin 1020XS



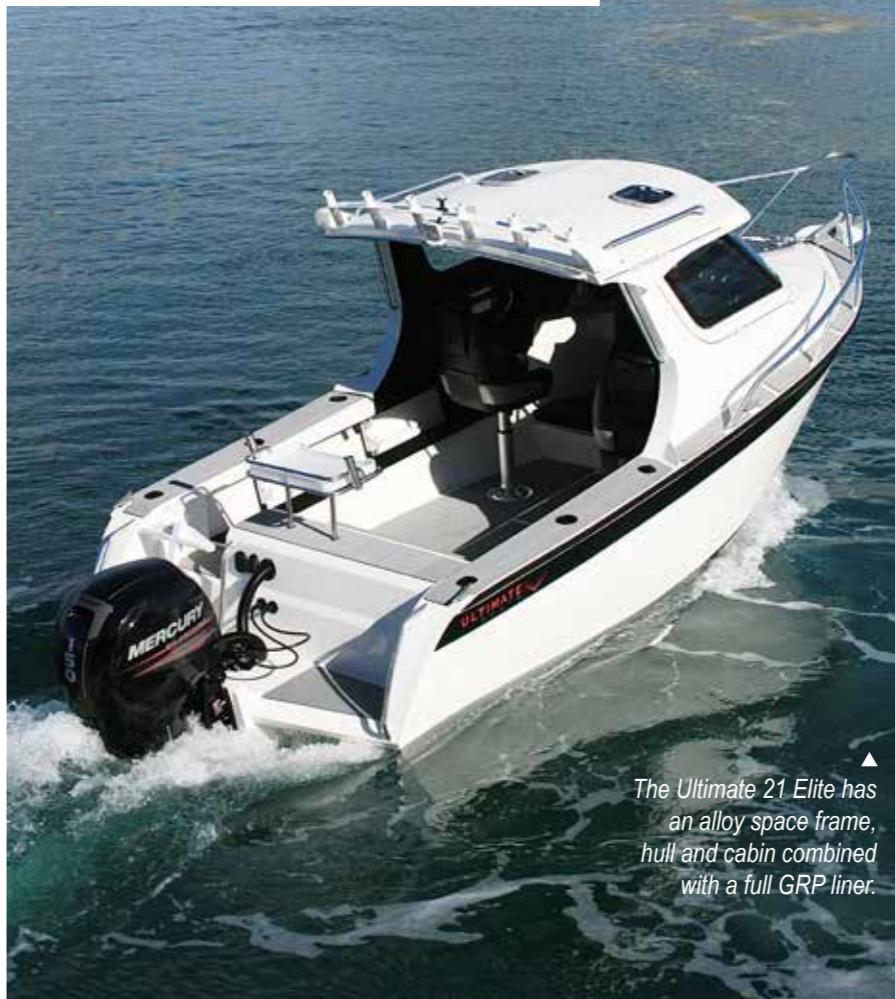
◀ The twin batteries are safely housed high up out of harm's way in the fully enclosed transom locker.



▲ The pride of place on the dash is occupied by the Garmin 1020XS MFD.



▼ The large fully moulded underfloor locker.



▲ The Ultimate 21 Elite has an alloy space frame, hull and cabin combined with a full GRP liner.

MFD, ably supported by the Mercury Smart Gauge instruments, the control panels for the Maxwell RC6 windlass and Electrotab trim tabs, and by a brace of DC panels. These latter connect to a Connex wiring loom on which Mark has specifically left several spare connections in case future owners wish to add more electronics.

SIMPLE, EFFECTIVE COCKPIT

Like most alloy boats, the Ultimate 21 Elite will probably be used mainly for fishing and diving. To this end, Mark has included a pair of Waeco Cool-Ice moveable chiller box seats that can be positioned anywhere in the cockpit, a live bait well under the step to the transom, a slide-in Manta baitboard with twin rod holders (to complement the 6 in the rocket launcher and the four in the side decks) and a centrally positioned drink holder in each coaming. Other practical additions include a spotlight and tow hitch up on the hardtop, LED lights throughout the interior and a large underfloor

locker forward of the fuel tank.

The Elite's twin batteries are safely housed high up out of harm's way in the fully enclosed transom locker. The locker is also home to the fuel filter, safely separated from the batteries behind its own bulkhead. Another nice touch is the positioning of the battery isolating switch: on the rear bulkhead and under the starboard side deck, meaning it is both protected from the elements and easily accessible.

UNDERWAY

The standard outboard for both the Ultimate 21 and its new Elite counterpart is a Mercury 150hp 4-stroke outboard. However, the owner of the all-alloy model that we reviewed earlier this year had opted for a more powerful Suzuki 200hp 4-stroke. Although both our performance runs were conducted in the fairly calm waters in the lee of Matakana Island, just north of Tauranga,

the results were not as different as one might expect. Despite the fact it weighs some 200kgs more, it was the newer, heavier and less highly powered Elite that often produced the higher speeds, albeit using slightly more fuel to do so. For example, at a cruising rev of 4500rpm, the Elite hit 29.6 knots and used 33 litres per hour. By contrast, the 200hp-powered all alloy version reached just 28 knots, while using only 30.5 lph.

One reason for the disparity could be the different propellers and gear ratios. While the original Ultimate 21 was able to rev out to 6300rpm, the Elite reached just 5800.

While the extra weight made very little difference to the speed and efficiency figures, it is certainly noticeable when underway, especially in more moderate seas. In the occasionally choppy seas and gently rolling swells out beyond the harbour entrance, the Elite felt really solid, more like a typical GRP vessel than an aluminium one. Seemingly sitting deeper in the water, it tracked straight and true, handled the peaks and troughs without any problem, even at speed, and was undeniably quieter, too.

As a final test, we headed in close to Matakana Island and dropped anchor in the sort of depth one might chose for a picnic, an overnight stay or a shallow water evening fish. The difference was definitely noticeable: there was almost none of that traditional "tinnie slap" one usually expects on an alloy boat; instead there were just soft, almost-soothing, lapping notes; a calm accompaniment to the peaceful serenity of a beautiful winter's day.

SUMMARY

Truly innovative concepts are a real rarity in our industry, new thinking tends to be more evolutionary than dramatically revolutionary. It was therefore a rare privilege to be asked to review this truly different addition to our national pleasure boat fleet.

Mark Presnall's unique idea has translated into something really special: a boat that takes the best features of aluminium and GRP boat construction, combines them and, amazingly, costs just fractionally more than one made solely from alloy.

Apart from the obvious benefits that come from having a GRP liner in an aluminium boat, there are lots of little touches to admire here, too. For example, those attractive powder coated side pocket flashings are actually bolted in place and strong enough to be stood on when stepping up onto the side decks. If one needs to go forward around those side decks, they will find they have not been forgotten, either.

Low profile handrails on both sides provide safe hand grips without detracting from the Elite's smart lines.

And, perhaps best of all, despite its impressive appearance and performance, this first Elite is not finished yet. For example, Mark has plans to add a combination footrest/berth extension so that the cabin bunks, currently around 1.7-metres long, can be quickly and easily converted into 2m ones. He is also already willing and able to cater for Kiwis' love of customisation: that impressive GRP liner can be ordered in a wide range of colours, not just white.

Although Kiwi boat owners are traditionally conservative and often reluctant to try things that are radically new, Mark's innovative hull-in-hull Elite deserves to become very popular. If his company can continue to produce boats at this level of quality, at virtually the same price as an all-alloy equivalent, I am sure they will do just that. ♦

SPECIFICATIONS

<i>Model & Model:</i>	Ultimate 21 Elite
<i>Priced from:</i>	\$88,000
<i>Price as tested:</i>	\$115,000
<i>Type:</i>	Monohull
<i>Construction:</i>	Alloy: 6m hull, 4mm sides; GRP liner
<i>LOA:</i>	6.35m
<i>Beam:</i>	2.45m
<i>Deadrise:</i>	18 degrees
<i>Height on trailer:</i>	2960mm
<i>Trailerable weight:</i>	2200 (w/ full fuel)
<i>Test Power:</i>	Mercury 150hp 4-stroke outboard
<i>Propeller:</i>	Inertia 3 x 14.7 x 16
<i>Power options:</i>	Outboard only
<i>HP Range:</i>	115-200 hp
<i>Fuel capacity:</i>	150 litres
<i>Trailer:</i>	Enduro Custom

Notable Standard Items: Bow rails, 10 alloy rod holders, bilge pump, fuel filter, VHF radio, trim tabs

Boat Supplied by: Gulfland Marine

Contact: Mark Presnall (021) 1380-870, sales@ultimateboats.co.nz www.ultimateboats.co.nz

PERFORMANCE DATA

RPM	Knots	L / h
1000	4.2	3.4
1500	5.6	5.5
2000	6.7	8.4
2500	8.0	13.4
3000	15	16.7
3500	21	19.5
4000	24.5	25.0
4500	29.6	33.0
5000	32.5	39.9
5500	36.5	54.0
5800	37.0	54.8

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