Ship to sure

BY CHARLOTTE THOMAS

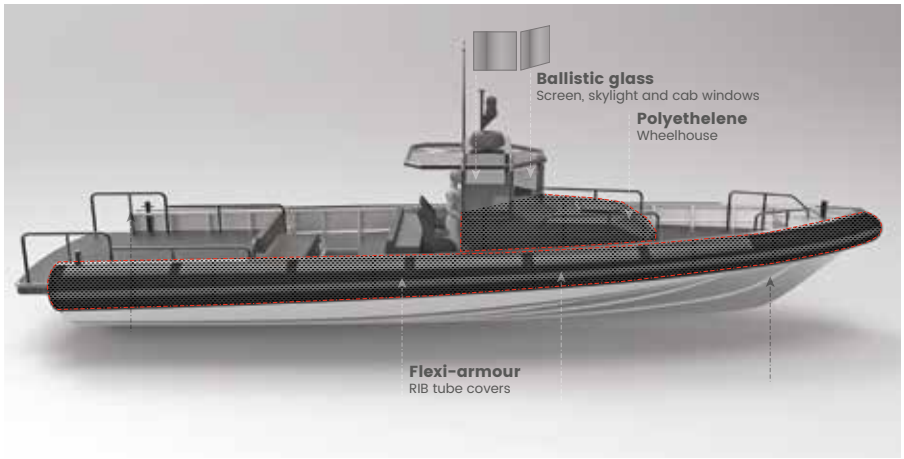
Creating a protected safe haven from firearms aboard the mothership is one thing, but how do you protect owners, VIPs and guests between ship and shore? As it turns out, armouring a tender is actually feasible when approached in the right way.

Compared to the mothership or, perhaps, the armoured car that might deliver an owner or their family and guests to the dockside, the humble tender may seem somewhat vulnerable if a client has fears about being caught up in an attack. The thought of adding heavy plates to your exquisitely styled limo tender may be something of anathema in an industry that places great store on the aesthetics of every facet of the superyacht family. As for RIBs, surely they are the least defendable of all? In reality, solutions exist both for limo tenders and for more open sports boats or RIBs thanks to the bespoke composite armouring offered by ballistic protection specialists Air Sea Land Group (ASL).

ASL recently completed the installation of armour to an existing superyacht tender – a process known as up-armouring – with protection designed to stop 7.62mm ammunition as used in the AK47 assault rifle. “For this project, we used our Legion Polyethylene panels and we also replaced some of the OEM glazing with ballistic glass,” says ASL’s sales director Jack Sandiford Haigh. The process involved sending ASL engineers to the vessel to create the initial timber templates that could then be shipped back to ASL’s UK-based production facility for scanning and conversion into CAD files, ready for the client’s sign-off. “The engineers were on site for around three days,” says Sandiford Haigh. “Then, after the templates were digitised and signed off by the client, we manufactured the panels and sent our engineers back to the vessel with the panels to complete installation.”

For this project, the limo style of the tender afforded a relatively easy option for up-armouring. “The tender had parallel bench seats facing each other, so basically we up-armoured the backs of the seats port and starboard, and also the glazing which is at head height as you sit,” adds Sandiford Haigh. “We also did both sides and the top of the inboard engine cover, so what the client ended up with was a protected VIP area within the tender and also a protected engine – a crucial element if you come under attack to ensure you can make a get-away. It was relatively simple because although the tender itself is a complicated moulding, the VIP area is essentially a bit of a box.”

While it is relatively easy to envision armouring an enclosed limo tender, semi-open tenders or RIBs present more of a challenge – but even here there are solutions.



ASL's Legion Polyethylene offers considerable weight advantages over more traditional ballistic-protection materials, coupled with the fact that it can be moulded to suit more or less any shape. Even so, adding anything to an existing design can potentially create problems from a naval architecture or performance point of view, and to ensure the up-armouring process didn't adversely impact these aspects ASL drew on the expertise of naval architect Guy Whitehouse, principal of Whitehouse Yacht Design.

"The issue with that tender – it wasn't one of our designs – was it was rather heavy to start with," says Whitehouse. "So the first real job was to sit down and look into performance. Was it acceptable if we added, in this case, about half a ton of weight to it? What would that mean for the current performance? Would the client be happy to lose a knot or more, and would it change the characteristics of the boat? That's the first thing we do – a feasibility study on the boat."

There is also the impact that any additional weight may have on the tender's lifting mechanism or how the distribution of weight may affect running trim or the ability to get over the hump and on to the plane, but these can be overcome through careful design and prioritising the key elements of protection the client is demanding.

Of course, starting from scratch makes the process much easier. "If you're doing it from the beginning and designing the armour when you design the tender, of course you can incorporate those aspects, and your hull shape will be appropriate for the weight you've got to carry," says Whitehouse. Moreover, the nature of ASL's Legion Polyethylene armour means it can be incorporated in the hull construction, used as a replacement for the usual core at the lay-up stage.

"For a new-build, if we can incorporate our materials within the lay-up during the initial design phase, it makes an installation a lot simpler," adds Sandiford Haigh. "We don't have to send engineers to template the areas as the panels can be pre-cut, whether that's the hull or the limo area or the engine cover. It certainly makes life easier because we can build the tender itself to suit the armour rather than the other way around."

This is all very well for enclosed limo-style tenders, but what about when it comes to more open boats or RIBs? Despite what you may think, solutions actually exist for these vessels too. Indeed, ASL has been involved in several military and special-forces projects where armour capable of stopping armour-piercing rounds has been specified. Typically, in those instances, the armour is used to protect critical systems within the main console; for superyachts, the idea can be extended to provide at least something of a safe area on board.

"If you're on an open RIB you don't have that much protection and what you're really relying on is the ability to get away quickly," says Sandiford Haigh. "We have done armoured outboard cowlings and consoles, but also if you have a wheelhouse or partially enclosed helm or cockpit area you have a lot more area to protect personnel, at which point we would fully armour the cuddy and would consider ballistic glass.

"What we have also done before, not for superyachts yet but for other RIB applications, is add flat panels just inside the tubes of a RIB, so effectively you have protection up to waist height. You can crouch down and it gives you a degree of protection. We have flexible armour systems as well but that only really goes up to handgun level, so it depends on the threat level you wish to protect against and where you are in the world."

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As with anything, the key is to involve the specialists in the tender-design phase as early as possible. "Ideally, we always want to be involved from the start of the build so that we can advise which materials are best suited to which areas on the vessel," says Sandiford Haigh. "We're more than just a materials supplier – we want to be involved in the build in terms of which materials are suitable for which application. Ballistic protection is our USP and we want to work with tender builders to make sure that for a new-build or up-armouring project there are full overlaps so there is no ballistic weakness. That's really where our skill set lies."

It's clear that when thought about early enough in the project, and with the right advice from the ballistic-protection experts and from a naval architect, creating a safe haven on a tender is not only feasible but also, in some ways, relatively straightforward. Therefore, is it something you should think about as an owner or as a tender builder? "If you've armoured your car, I think you should armour your tender," concludes Whitehouse. "It makes no sense to me not to as when you are leaving the protection of the mothership that's when people will see you as being at your most vulnerable. I think it's a no-brainer for any VIP or executive who feels they need security or just wants peace of mind for them or their family." CT