TESTED : Spacecraft Custom Dive Boat

Graham Lloyd looks at a new boat from Spacecraft, a company customising some outstanding hulls for offshore divers and fishermen. (COPIED FROM POWER BOAT MAGAZINE)

I asked " Why did you choose Spacecraft over the other boats?". James didn't need to think and immediately replied. " Because Larry was the most professional in his approach to us as potential clients, he was always helpful and courteous, he was frank when it came to discussing costs, he listened to our ideas on what we needed, and he always met deadlines."

I wonder how many boat companies would sell more boats if their prospective clients could make the same comments about their Managing Director?

James Findlay, president of the Diving Organisation of the University of Technology Sydney, was talking to me about the new Spacecraft Dive Boat that DOUTS had recently acquired. Larry Wiltshire is Managing Director (and the chief designer) of Spacecraft, a company specialising in aluminium boats and based in Toronto, NSW.

After running a smaller boat for some time, DOUTS had decided that they needed a bigger and more seaworthy craft to better meet the needs of their 240 diving members. DOUTS, which has been in operation for a decade, trains some 50 new divers each year, and runs expeditions from local runs off Port Hacking to dives on the Barrier Reef.

James, with help from his VP Craig Scott and other members, had a clear idea of what they needed and shopped the specification to several boat builders before deciding to go with Spacecraft.

The key requirements were for the ability to run in offshore conditions carrying a skipper and eight divers together with all their equipment. For security away from the coast, twin engines we needed to be locked away.

Spacecraft had a standard hull design that was already well proven whilst running offshore. For that hull, Larry designed a new deck and cuddy cabin layout to

accommodate the specific requirements of the DOUTS diving team. This design was fine tuned in conjunction with James and Craig (remember, Larry listened to what they wanted) to produce the final, very acceptable, result.

Spacecraft build all their boats this way. Starting with a standard, proven hull, and adding the deck and layout to suit individual client requirements. The fact is Larry virtually custom builds each boat. The client can choose between a cuddy cabin,

half cabin, inboard power (petrol or diesel), outboards, and between single or twins.

Steel buildings jigs are used for accuracy, with aluminium sheets cut from templates being pulled around the jigs and welded together. Transverse frames are built in at 600 mm spacing for the entire length of the boat, and eight longitudinal stringers (four either side of the keel), add to the enormous strength of the design.

The welds are probably over-engineered with 230mm welds on either side of frames and stringers overlapping by 25mm. Welds on external joins such as gunwales, chines, transom and the outboard engine pod are continuous.

The method of construction allows Spacecraft to adjust overall length to suit each client; this diveboat came out at 6.4 metres overall length (a sister ship is nearly completed at 5.5 metres OAL), with a beam of 2.45 metres. Deadrise at the transom is 20 degrees for a soft ride in those choppy offshore waters.

Plating on the undersides of the hull is 5mm thick high tensile marine grade aluminium, with 4mm plate from chine to gunwale and 3mm for the topsides. The aluminium is finished with two coats of primer, although most of the first one is rubbed away in the finishing process, and two coats of gloss, all in polyurethane two pack.

The hull design has quite high freeboard with good buoyancy in the bow shoulders. There is a fine entry to undersides that carry fairly narrow chines and a single running strake on either side. The keel has a wedge shaped planing pad that carries further forward than on most boats. For the dive boat, grab rails were requested on the chines and Larry initially had some concern as to the effect these might have on the handling and ride. However, he incorporated an angle so that the rails flared up form the chines, and the result has been that they do not affect the ride or handling.

The very strong pod for the outboards run the full width of the transom with the two 90HP Yamahas being mounted on either side of a clever central boarding ladder. The latter pivots away from a locked ‘up position’ in which the ladder runs up and aft of transom (looking at first sight like some futuristic antennae), whilst a solid plate closes off the access gate in the transom. The ladder can be easily dropped down (again locking firmly into position to avoid any movement when using it in a swell offshore), and this then gives excellent access to the boat from the water, and vice versa, and from the ladder to the cockpit through the transom gate.

The cockpit has a large walk around area with a central pair of seats running along its length. Between the seats is stowage for air cylinders with additional side mounted stowage brackets. The dual batteries are mounted most securely at the aft end of the central seats, and are equipped with master and crossover switches. An electric bilge pump is supplemented by a manual pump, which is always a good idea. Small stowage areas run along either side of the cockpit.

Beneath the floor is a 200 litre fuel tank, and elsewhere there is foam flotation alongside a central drainage channel. More foam is in the cockpit sides and transom to provide positive buoyancy in the event of a swamping or other disaster. Although not

actually in survey, the boat has been built to survey standards in all respects other than the height of the bow rail.

A small cuddy cabin forward gives protection for safety equipment and the radios; a lockable door has been fitted to deliver the requested level of security. The depth sounder is mounted on a clever panel that sits up behind the screen for use, but

which pivots down to be locked away inside the cabin when the boat is ashore.

The screen is strong and effective and is topped with a grab bar. Another such bar runs along the aft edge of the targa arch and swings down the sides of the targa before curving to run along the cockpit sides. Another grab rail runs across the aft edge of the cuddy cabin for two or three crew members to hold, and the top of the central scuba tank stowage acts as another huge grab rail, all of which provides plenty of support regardless of where you are standing in the cockpit.

Forward of the screen is a small foredeck with rails either side, a good sized bollard behind a bow roller, and a large anchor well designed to cope with at least two anchors and their chains and lines.

PERFORMANCE

The steering position is to standard and is set up for the boat to be driven whilst standing. The layout is good, with instruments clearly visible ahead of the wheel, and dual Yamaha throttles comfortably positioned on the cockpit side. The engine trim switches are in the outside tops of the throttle levers, and I found these too far apart to be operated simultaneously with one hand, a minor point that would not be an issue for those with a larger hand than I (as James has!).

The Yamahas are controlled through Marcon hydraulic steering which is nicely weighted whilst eliminating any torque effect from the two props, even though the latter are not counter rotating. Because the engines are mounted further apart than usual to give the central boarding access through the transom, the boat does not turn as tightly as other craft, and in slow, tight turns the props will sometimes ventilate.

However, these points do not affect overall manoeuvrability which is excellent. The boat came up on plane easily with negligible bow rise, and the engines trimmed out to about halfway for a smooth ride. A benefit of the wide engine spacing was that lateral balance could be well controlled by trimming either engine; tabs were not needed despite the deepish vee of the hull.

On the day, the Yamahas were spinning 15 inch pitch aluminium props (16 inch stainless steel ones are on order), and this gave an economical cruise of 20 knots at 4,000 rpm, a faster but still relaxed 26 knots at 5,000 rpm, and a top speed of around 30 knots at 5,500 rpm. This was with a crew of six and quite a load of diving equipment. With a lighter load and spinning 17 inch props, the boat has recorded 38 knots.

Running out from Port Hacking into a moderate wind blown swell, the Spacecraft impressed me with its very soft ride. The control position is a fair way forward and I had expected to be very conscious of re-entry impacts as we came off the swells, but the bow dropped cleanly and remarkably gently. The buoyancy designed into the bows worked effectively, and the stem rose quickly each time to meet the next roller.

At cruise speeds, the Spacecraft was responsive to the wheel and turned will without any trace of slipping; the hull was comfortable whether running into the swells,

downwind or across them. The chines worked efficiently in punching spray aside, and the ride on the day was dry as well as soft.

The DOUTS dive team on board had nothing but praise for the boat and the company that had built it. Everywhere I looked, there was evidence of careful design and quality construction; Spacecraft boats are obviously built to last and, in fact, come

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with a three year warranty.
Larry explained to me that his philosophy was not to build down to a price, but to provide the very best boats he can with the emphasis on value for money rather than just a boat for the least dollars. As Spacecraft is currently building larger premises to meet a growing demand, his approach seems to be working.

Certainly I have seen many examples when both builders and buyers have gone for the lowest cost, only to have the (usually unhappy) buyer subsequently spend more than a quality boat would have cost in the first place to correct problems or enhance the specification.

Spacecraft build a range of boats from 2.9 metres up to eight metres. Fully fitted out with numerous options, twin engines, trailer and electronics, the cost for (1) DOUTLESS II was over $50,000 excluding tax, but pricing for this style of boat stars at around $32,000 with the actual cost very dependent on the requirements of the individual client.

Our thanks to Larry Wiltshire of Spacecraft, James Findlay and Craig Scott of DOUTS, and to Cathy Holloway (the Editor of our sister publication Scuba Diver, all of whom combined to make possible this most enjoyable review of a very impressive boat.

All Spacecraft boats are based on stock hulls then fully customized to the buyer's exact requirements. They produce diving, fishing and cruising craft as well as a wide range of boats for professional applications.

For information contact Larry at Spacecraft, 26 Day Street, Toronto, NSW, 2283, or phone him on (02) 49504083.