

## TEST: SPACECRAFT TOURNAMENT X640



It's a sure thing Australia is the world's premier builder of aluminium boats. Not surprising considering our unbelievably rich deposits of bauxite, the long history of extractive companies such as Alcan who produce most of the country's marine grade alloy, and our highly experienced metalworkers who were born with 'ore in their veins', carrying on the tradition of life in the smelters, a life their forefathers founded when the horse drawn hoe was all the rage.

The combination of these three elements—abundant mineral resources, extractive experience and skilled labour force—has led to an extremely high standard of aluminium craftsmanship, which is reflected by the quality of locally-built tin boats on today's market. Gone is the nightmare riveted or skimp-welded hull, the thin alloy sheet and insufficient backing frames. And gone is the 'narrow-beamed broacher', the 'slap-sided dart' and 'flare less wave filler', all poor designs from 20 years ago when aluminium was regarded as an inflexible boatbuilding material.

No, today's tinnies are strong, modern designs, often with brilliant finishes. Like meat pies, kangaroos and Holden cars, they're made for local conditions —towing over outback roads, back-country boat - launchings, busting river bars, carrying heavy loads across rough water for great distances, pulling up to beaches or even leaving to dry-out over a coral reef. They'll do all this, tide in, tide out, without bearing a split seam and letting you down when it most counts.

The 'secret'? Plate aluminium, 3, 4 or 5mm thick, attached to a honeycomb type frame containing full longitudinal and transverse supports. No room for flex, no room for metal fatigue, no room for failure. But as with most things, the strength of the hull lies not so much with the material as the way it's worked, in this case the quality of welding and fabricating.

Which brings us to Spacecraft, the makers of the X640 and subject of this test . . .

LOCATED in Toronto, a stone's throw away from the Newcastle Alcan smelter and a native population of born metalworkers, Spacecraft pride themselves on the strength of their boats; over engineered **by anyone but King Neptune's standards**. To fully appreciate what the head of the operation, Larry Wiltshire, considers proper plate-aluminium boat construction, a guided tour of his factory is recommended.

**First thing Larry pointed-out was that he employs only** ticketed pressure-welders, guys who know all about the hidden properties of aluminium and how to meld the stuff. He uses high-tensile plate, 5mm for the hull bottom and 3mm for topsides on the X640, and stitch welds (longer and stronger) instead of the common spot welding. He claims his boats are at least three times overbuilt compared to the opposition's, and **that simply "no aluminium boat in Australia is as strong as a Spacecraft."**

Like most plate boats, hull support is **achieved through a** full honeycomb-type frame. On the X640, we're talking major Over-engineering, with incredibly robust 50 x 6mm longitudinals and 120 x 5mm transverses. After examining a half-finished 18-footer which had frame like scaffolding on an inner-city skyscraper, we shifted location to Larry's waterfront home on the banks of Lake MacQuarie. There, the X640 test boat floated proudly alongside his private jetty . . .

Unlike a lot of plate offshore hulls, this one has strength and style. The cabin top or foredeck, screen, targa and tower are low profiled, tie in with the raked bow rail, cabin windows and trim lines to form one very sporty sportfisher which will impress the wives (important, according to Spacecraft) as much as it will the hard-core fishos.

Beneath this style lies a typically fine-entry beamy and deep hull with a 20 \_ deadrise. Two strakes aside improve lift, tracking, and running efficiently while noticeably hard chine sitting just clear of the water aids stability when immersed, acts as a good spray deflector when running.

It's on closer examination that the X640 shows its true colours. The entire top deck from gunwale-trim up is pressed to **shape** with specially devised jigs, resulting in no hard edges with every fold radiused to a smooch, safe curve. Even feeling blind under the gunwale coamings there's not a hint of a sharp, dirty weld—all ground flush.

The new two-part polyurethane paints can do no better than the brilliant gloss, snow-white finish on the X640. Along with the softness of the full, inlaid beach floor and wooden base for the game chair, the hard metal feel inherent with most 'tin' boats is well and truly lost on the Spacecraft. Furthermore, the boat is foamed filled between hull and floor, with exceptional insulating in the bow area to reduce noise or water-slapping. All these measures help make the X640 a user-friendly, comfortable vessel that will serve the family as a day boat, a couple as an overnigher, just as it will the bluewater fisherman.

**THE X640** is a cabin boat with two full-length 71/2ft x 2ft 2in bunks which can be infilled to form a large double, or have a Portaloos fitted between. Under each bunk and where the optional head fits is storage space for safety gear, etc. but due to intense foam filling of this 'impact area' and the depth of hull absorbed by the cabin, there's not a lot of room there. Compensation comes in the form of two long sidepockets flanking the bunks, and a hatched bin under the first step leading back up to the cockpit.

The cabin is completely carpet-lined, in a nice neutral grey on the test boat. Fabric choice for sidepocket trim and bunks was a similar subtle grey but with splashes of light pastel colours, which presents a pleasant, inoffensive atmosphere. Sunlight through the extra heavy-duty hatch and profiled side windows is good, as is ventilation through the former and through the wide bulkhead leading inside. A final neat touch worth noting in the cabin is the covering board hiding the electrical circuits behind the dash. It keeps them out of sight yet within easy servicing.

Access through the cabin hatch to the foredeck and anchoring gear is by standing on the centre cushion between bunks. However, as Larry Wiltshire pointed out, the side anchoring system is a far better solution on any cabin boat. Simply, the anchor is deployed from the cockpit with rope kept in a large portable crate. Once the 'pick' is set, the anchor rope is lied-off to a rubber snubber on a length of rope permanently attached to the bow. The anchor then pulls from the front of the boat,



***TOP - Steering is light, seat hip hugging  
RIGHT - Unique inlaid beech floor with removable fish boxes.***

but when retrieval is due you simply pull on the main line from the crate, undo the attachment to the bow rope, then drive it off or haul back from the cockpit.

For traditionalists, the anchor rope locker, cross bollard and fairlead with toggle pin are more than adequate for foredeck anchoring. In calm seas, or if agile, you can safely walk around the side decks to reach the bow, with grab rails around the hardtop giving support en route.

The helm and passenger 'wheelhouse' is enclosed by thick, clear plastic curtains with zip-out 'windows', all supported by the hardtop and targa. These were nicely tensioned without stressing the seams, and proved easy to look through. The screen is acrylic (optional glass with wipers) and set at a good height for clear vision when seated, although the support bar running across the top was at eye level when standing. I'm told the screen will be changed in height or angle to alleviate this problem. Zip-out 'soft' windows above the screen can be dropped for a totally dean forward view, useful when navigating around coral, sandbanks, etc.

Although the clear curtains and targa top are an option, I firmly believe this is what gives the X640 a secure, big boat feel. Being enclosed in a fully weather and waterproof housing is a blessing anytime on the water; when battling heavy squalls, running abeam to wind-blow spray, during the midday sun and especially now that skin cancer is on the increase. I really like that feeling of being protected, sealed from the elements, yet able to zip down curtains for maximum vision and air flow.

The hardtop is fully lined with carpet, set for full standing room. While well supported by fore and aft struts, designer Larry Wiltshire has made the test boat's tower able to fold down for easy garage storage, and to enable him to high-tide clearance of Lake MacQuarie's Swansea bridge. Quite ingenious.

With a sizable surface of non-slip, complete safety rails and easy access, the hardtop makes a great fish-spotting tower for one adult or a couple of kids. Surprisingly, the addition of weight up top makes next to no difference to stability while running or stationary. This is due to the V8 petrol Volvo engine being set low in the hull and a fair way forward. It acts as ballast. The rear edge of the bridge has a rocket launcher which securely holds up to eight fishing outfits.

While there is little doubt the X640 would perform with a pair of 90hp on pods or transom-mounted, Larry Wiltshire favors the benefits gained through fitting an inboard. The weight balance of the low set and mid-station engine mounting, the quietness of the motor in the foam-filled engine box, the transom treatment, tidiness and unbelievable performance are advantages backing his favoritism.

The X640 test boat's power was a 570/DP (AQ271C) Volvo Penta Duoprop, fitted with a 780 Holley carburettor. A V8 petrol motor based on the 350 Chev block, we achieved a top speed of 41 knots at 4400rpm with three men and little gear aboard, while cruising doing 27/28 knots at 3000rpm. The boat will plane down to 2500rpm were it rides nice and flat in the water.

The Volvo Penta Duoprop hides under a low engine box located in the middle of the cockpit, the lid laid in beech with a custom-made game chair fitted centrally. The V8 slots easily inside with plenty of servicing room. Massive aluminium bearers carry the weight, and are capable of taking a four cylinder or, by extending the box forward gin, a six-cylinder diesel. Sound-proofed with foam insulating, there's a separate sump underneath where a bilge pump, blower and twin sniffers take care of possible petrol or water intrusion. The engine is well illuminated by a fluoro fixed under the hatch.

Just forward of the engine box sits a 260 litre wedge-shaped fuel tank. Approved as petrol tank builders by the MSB, you can rest assured that the 4mm plate construction will go the distance.

The transom of the X640 is especially good, clean and uncluttered, with non-slip boarding platforms each side of the Duoprop leg which is recessed quite deep under a 'lift' tunnel. Clever boarding ladder design allows the marlin door to fold out of the transom and into the water, while it locks back securely for drag-free running. Situated mid-transom, the live bait tank is a large capacity number with an internal viewing window to check on contents while heading out to the grounds. A nylon berley bucket bolted to starboard can be worked from the cockpit OK, while the Spacecraft made scuppers are simple flaps fitted clear of the water to help prevent backwash when reversing.

The cockpit on this 21ft cabin boat is proportionally huge. With a 3mm plate sole, sandblasted, etched, then primed with white epoxy, the test rig had the optional luxury touch of a full beech floor. The natural appearance and soft but grippy texture is usually the preserve of big game boats. Although it costs, if you had a little money left over from your Spacecraft order it would be well spent on pampering your hoofs.

The beach was laid locally, to an impeccable standard, with two fish boxes containing removable Nally buckets and a large capacity 2ft x 2ft x 2ft 6in ice box with fridge seal that holds ice firm for at least three days, hidden beneath flush-fitting lids with ring toggles.

Thigh support along the cockpit sides is fine, though I found the transom a little low, hitting well below the knees. Larry Wiltshire responded by saying transom height is best specified for individual owners prior to construction. Enormous sidepockets running the full length of the cockpit before being baffled to form separate storage bins alongside skipper and mate are ideal for holding paddles, gaffs, landing nets, tag poles and other awkward equipment. Padded with full carpet lining, they make comfy knee braces when leaning overboard, while protecting stored gear.

Lastly, four countersunk rod holders set in the side decks are angled so that line runs straight over roller guides on trolling outfits, while alongside is the fuel filler with extra wide down pipe and maxi breather designed for high-speed filling without having to worry about blow-back. Larry's big on lighting, the test boat having fluoro tubes fitted under the gunwale coamings, in engine room, hardtop and cabin: Overall effect is abundant, moody and functional white light which doesn't interfere with forward vision.

AUSTRALIA'S largest permanent saltwater lake is a boating mecca, a massive estuary system of many personalities spanning from the she-oak shrouded western shores to clean sand islands mid reaches, through to Swansea where high tide brings warm, crystalline ocean water flooding under the famous bridge. Bird and fish life team in the lake, are relatively unaffected by recreational boaters and fishermen simply because of the magnitude of the place. Lake Macquarie consists of 1 50km of foreshore and is 110sq km overall, making it four times the size of Sydney Harbour.

As an arena for testing boats, it's perfect —plenty of flat water for performance rating while leading out through a deep channel, across a tidal 'bar' to open ocean off Swansea. In short, there's the full range of different water conditions to assess a boat's handling, which is what makes a test complete . . .

With a Volvo Penta representative aboard, the V8 570 was on best behaviour, rumbling like only a Chevy can the moment the key connected. The engine idled quietly, without vibration, but anxiously as though awaiting a shot of petroleum. Local identity Fred Studdon of Fish Power Marine, Newcastle, had his 18ft Broadbill alongside as the perfect, stable camera boat.

We pulled away from the wharf and through the moorings at Toronto, the boat very manoeuvrable for a single screw because of the great purchase the Duoprop has on the water. Progressively, the throttle was taken forward, again the Duoprop biting hard and pushing the 21 Footer swiftly onto the plane, with only the slightest lift of the bow before settling. The V8 has grunt, so much grunt that if instant planing attitude is required, such as when crossing a bar, then it comes almost as quickly as the throttle is advanced.

With barely a zephyr to caress the surface, we shot across the mirrored main body of Lake Macquarie at a smart 40 knots-plus, the boat riding high on the water and requiring only a touch of out-trim to reach its speed limit. On the X640 test boat, Volvo's standard dash-mounted trim buttons were supplemented by a throttle mounted control, similar to what outboards employ, which made adjusting the hull's planing attitude dead easy while up and running.

Seated in one of the two 360-degree swiveling forward pedestals made by Spacecraft and mounted on Reelax bases was comfortable with thick padding and high arm rests holding the lower body firmly in place ... essential for the wild slalom circuits we performed. The forward seats aren't adjustable, which for a shorty might make driving the boat difficult, though they can be easy unscrewed and permanently repositioned. Larry Wiltshire intimated future driver's seats would be adjustable fore and aft.

Running flat chat at better than 40, the boat was thrown into full lock where it snapped around on its tail without the slightest hint of cavitation, without slipping sideways. It was simply amazing, the difference like taking a tight corner in a tricked-up Porsche as opposed to a suspension-shot Valiant. The reason: without doubt the Duoprop, its amazing grip on the water and the fact that it was set deep under the hull in a lift tunnel.

Dropping back to 8 knots for the chug through Swansea Channel, the hull sat nice and flat without being bow heavy, proving its ability to carry four adults and full tackle at low speeds without problem. Folding the tower down to fit under the bridge was surprisingly quick and easy, and once clear with tower locked up, it was back to a comfortable 27 knots as we made for the entrance with the Broadbill camera boat hot on our tail.

North-east seabreezes usually die in the evening when the land mass cools down, but the night prior to the test day had die n one of those rare occasions when they blew straight through. The effect it had on the ocean, despite dying in the early hours of the morning, was to leave a dirty, residual chop which presented more surprise 'holes' than the Hume Highway.

Consequently, we bashed our way out through the bar and pounded into a head sea for a couple of miles before deciding on saving the spines. I put the X640 through its paces for a while, the Morse steering, power assisted by Volvo, incredibly torque free without having that feathery, floaty feel. Surrounded by intelligently positioned grab rails, the wheelhouse really proved its worth by keeping crew bone dry and providing that inherent sense of security so necessary when things are wet and wild.

All instruments on the dash were easily read while driving seated or standing, the standard Volvo monitoring board containing RPM, oil level, temperature, ammeter and fuel gauges. Larry had a few personal extras fitted, including an advanced gas protection system, engine trim and direction gauges, compass, Lowrance X15 sounder, GME 27 Meg radio and a GME stereo with waterproof speakers mounted on the targa frame. His cassette selection featured just about every ACDC album ever cut, the raunchy lead and thumping bass suiting the rumble of the V8 Volvo and the imposing sea conditions — high-voltage boating!