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**AWESOME!**  
**Force F23 Ski-Sportsboat**

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FORCE F23 WITH YAMAHA 250 HPDI V6

# AWESOME FORCE

One of the best built boats we've yet encountered, the Force F23 is a superb original design with flawless handling, stunning performance and remarkable attention to detail. **By Graham Lloyd**







There have been a few examples in Australia where the designer personally builds his own boats and puts heart and soul into the finished product. The result can be a craft that is world class, matching the innovative creations that come out of the vibrant and booming American custom boat industry. The Force F23 is one such design that is already gaining recognition - and orders.

We've previously tested and featured the first of Rod Bickerton's Force designs and were impressed enough with the 18 foot F18. Successful in both social-ski and ski-race arenas, the F18 has clean simple lines and an efficient set of running surfaces along with strong, and optionally high tech, construction.

There's now a 21 foot version and this even larger 23 footer (actually 7.18 metres) that very nicely fills a niche in the market for a skiboat-sportsboat with the power and presence to handle open waters such as Port Phillip or Moreton Bays and Sydney Harbour. Short haul offshore cruising would be well within the boat's capacity too.



**MAIN PHOTO:** A beautiful boat with a beautiful crew - no wonder designer/builder Rod Bickerton looks jubilant at the wheel of his F23. Rod's wife Kelly (in the blue top) works with him in every aspect of the business from laying up 'glass to marketing, selling and admin. Together they provide a very high level of personalised service, and have produced a remarkable trio of Force boats at 18, 21 and 23 feet.

**INSET:** The cuddy is low profile but comfortable for relaxing, overnighting or for Ricci and Taylor to play cards. The trim and upholstery throughout the boat is exemplary.



## FORCE F23 WITH YAMAHA 250 HPDI V6



**ABOVE:** Plenty of room in the cockpit with Di, Ricci, Taylor and Catherine showing there's space for four across the aft lounge. A grabhandle and recessed drinkholders are to each side, with more grabhandles and stowage pockets on the back of the front seats. As well, there's good footroom in front of the lounge.

**RIGHT:** Some of the best seats we've come across feature in the F23's cockpit with an excellent dash arrangement and most efficient helm. Note too the dash cut-away in front of the passenger seat to ease access into the forward cuddy cabin.

The F23 is quite deceptive. As you approach it for the first time, it looks just like a (normal but very stylish) skiboat, and you don't realise the extra size until you're up close or onboard. Then it becomes a mix of skiboat and offshore sportsboat with lines that have been drawn very cleverly to disguise its actual dimensions.

Also camouflaged by the lines is a cuddy cabin. Under that flowing foredeck is a low but entirely practical cabin with a double berth and with enough room to stretch out for a siesta or to stay overnight. Although not on our test boat, a toilet and shower with fresh-water tank can be added to the amenities for staying onboard over a week-end or so.

### Attention To Detail

Each Force is custom built with a quite remarkable level of attention to detail. The trailers are also custom built at Force and, like the boat they carry, can be optioned-up to suit the most discerning owner. Examples include colour-matched frames, tandem mag wheels, diamond-plate walk-



ways, fully enclosed and carpeted decking, submersible LED lights, a locker for hoses and attachments to wash the boat and flush the engine, and a carpeted compartment (with a carbon-fibre hatch) to conveniently store the winch handle! Another nice touch is that the name of the owner is welded on the inside front of the trailer frame.

The F23 looks smart in the photos, but it looks better in real life. The really good news though is that the boat runs even better than it looks.

In the cockpit, the front seats are high-backed and high-sided with deep upholstery for excellent support and long-trip relaxation. The skipper's seat adjusts fore-and-aft, and the other seat swivels for

observing or for communing with those on the wide aft lounge. The front seat bases and supports are tough and through-bolted for security.

The curved dash panel is ideal with gauges mounted above the wheel rim for instant viewing. Our boat had two Yamaha digital multi-function gauges directly ahead of the Momo sports wheel, with upmarket and easily read Auto-Meter gauges for temperature and fuel level to the left and volts and water pressure to the right.

The bottom of the dash sweeps up in front of the passenger seat to give extra clearance from the carpeted cockpit sole. This makes it relatively easy to slip into the cuddy cabin which is surprisingly spacious





**ABOVE:** Under the aft lounge are two insulated coolers, whilst behind it is a fridge plus access to twin batteries, the oil container and more storage space below the aft deck.

**RIGHT:** Check out the clean running of the hull in this and other photos. Rod has come up with a highly efficient design that handles impeccably with a good wake for skiing too. See also the hatches to storage in the transom pods, the colourfully anodised deck fittings, and the drop-down stainless step-pads on the transom itself.

for the style of boat, and nicely trimmed with all surfaces lined, carpeted or upholstered. A carbon-fibre panel hides up under the foredeck until needed, then swings down and locks into place to allow valuables to be secured out of sight.

A Clarion stereo CD-radio system was fitted with 200 watt amp, six CD stacker, four speakers and a sub-woofer to crank out the decibels at appropriate times, or to deliver romantic melodies at lower volumes with sweet clarity of sound.

Drink holders, grab handles and storage spots are everywhere - more of all than you'd find on most boats, and all intelligently positioned. Under the aft lounge cushions are insulated coolers, whilst the back of the lounge pivots up on a gas strut. Behind that is a fridge and twin (maintenance-free) batteries, the latter mounted where they are easily accessed in blue anodised heavy-duty frames. The oil container is aft to starboard (filled through a deck fitting) and more storage space is aft to port.

Even more storage can be accessed through hatches on top of transom side pods. These are excellent examples of both good design and attention to detail. The undersides of the pods add buoyancy aft and contribute to the F23's flat acceleration from rest, to its stability in turns, and to its excellent recovery when re-entering the water after circumstances have the hull fly-



ing clear of wakes or swells. Rather than waste the space inside the pods, Rod designed hinged hatches with spring supports and pop-up locks so that lines, fenders and ski equipment can be kept inside. The pod interiors run forward into the boat's sidepockets, so quite long items such as skis can be slipped in too. Very clever, and practical.

The pods can also be used as steps to enter or leave the water, and stainless drop-down step-pads are provided on the transom to make it that much easier.

### Power And Performance

The F23 can take up to 300 hp in a single outboard, or more from twin 2.5 litre units. Our test boat had just been rigged with one of Yamaha's new 250 hp HPDI 3.3 litre V6 2-strokes. This is a latest generation engine that has tons of power but with delivery so smooth and quiet that you don't initially realise the forces you have at your command, nor the speeds they deliver so eas-

ily, especially through the mid range.

The Yamaha was still tight so our speed runs were brief, but all the more impressive for that. Experiments with props were in progress, and our test run used a Mercury 23 inch pitch 3-blade stainless Tempest Plus prop that gave incredible grip and that matched with the Force hull for very efficient running. With 140 litres of fuel and a crew of three, and running on wind-chopped waters, the combination posted a top end of 72 mph (116 kph) at 5,900 rpm.

That's very fast for a 23 foot boat with a cuddy cabin and all amenities. I reckon there's more to come too, as the 250 Yammie develops its maximum power at 5,500 rpm and so is clearly capable of swinging a bigger pitch prop. With some more hours under its belt and a bigger pitch prop, I'd be surprised if the Z250F

doesn't push the F23 to 75 mph or better.

Midrange was impressive too with 4,000 rpm showing 48 mph and with the Yamaha humming at 5,000 the GPS was indicating 61 mph. The faster we went, the more efficient became the engine, prop and hull partnership. That says a lot for Rod's design, and for the engineering he's put into rigging the boat.

Punch out of the hole was strenuous with the hull leaping away, although with minimal bowrise. I kept trying standing starts with increasing engine trim levels, waiting for the prop to eventually ventilate, but it barely did that even at extreme trim angles. That prop sure has got some grip.

It was the same story in tight turns and figure eights. The prop held tight, and the hull followed suit to just sweep around with no bobbles, hops or concerns. Running fast through the chop gave predictable control and a feeling of absolute security. Through wash and wakes, the boat was solid and very soft riding to give a



## FORCE F23 WITH YAMAHA 250 HPDI V6

delightful sense of strength and endurance.

The steering was not finger-tip light, but nicely weighted for precise directional inputs. Rod used a Sea Star Pro helm with a Hynautic steering ram, and that worked very well with about four turns lock-to-lock. Engine trim controls were in the gear shift lever as usual, but also parallel-switched to buttons on the foot rest. Along with the foot throttle, that allowed the driver to keep both hands on the wheel when things were getting exciting.

The throttle was set up for the left foot and I thought that would be tricky to use, but it wasn't and I quickly felt right at home. Because of the depth of the top-sides, the front seats are higher than usual, so Rod built a separate moulding for the foot throttle and foot rest to lift them to a comfortable length and angle in relation to the seat. He also fitted sporty and smart Momo non-slip pedal inserts for comfort and a secure grip.

### Design And Construction

The transom is part of Rod's original hull design and is notched to allow a higher engine mounting position for reduced drag. Overall deadrise at the back is 21 degrees, but there's a planing flat that's quite wide aft before angling in to a fine entry as it runs forward. The chines are comparatively narrow but are well conceived and feature triple steps (or "lifting foils") with two of those also on the planing pad to again reduce drag and to give a smooth ride with optimum control and balance plus better fuel economy.

Five full length, fully-encapsulated, maple stringers run under the cockpit, with another two stringers above forming the lower sections of the sidepockets and with sturdy transom knees aft. All the 'glass is hand-laid, with foam sandwich and vinylester resins to ensure the best possible lay-up. Light weight hulls can be built too using balsa coring and vacuum-bagging for hi-tech strength. The external gel-coated surfaces are glossy, slippery and sleek with no print-through nor any surface irregularities at all.

The transom assembly and pods are fully integrated into the hull structure, and the remaining hull-to-deck join-surfaces are internally 'glassed all the way around. The F23 feels and is very solid, yet even "standard" versions carry no excess kilograms.

Deck hardware was anodised and looked very smart on the test boat in a deep blue for the fuel and oil fills, ski-tows, pull-up cleats and for the ski-pole which is very securely mounted with a base through-bolted into a transverse brace on the sole. Again indicative of the level of detail given



to every aspect of the F23, the oil and fuel fills sit neatly down into moulded recesses in the aft deck. Navigation lights were fitted too, with a capped fitting for a riding light on the port aft deck.

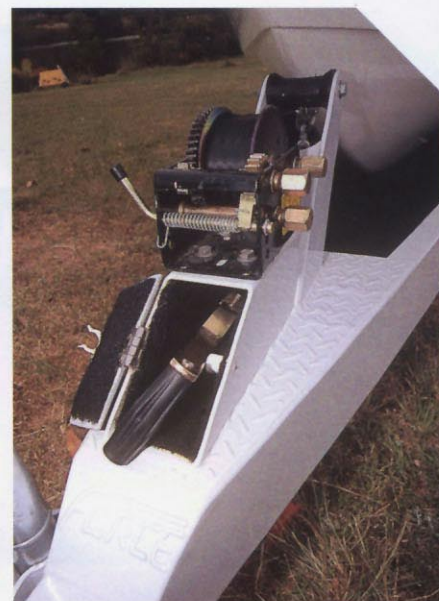
In the engine bay were more impressive details with the fuel tank breathers positioned to preclude any chance of spray or moisture entering. Rod uses two breathers plumbed to the fore and aft ends of the tank so it will fill easily and completely regardless of whether the boat happens to be level, bow down or stern down when you top up the 230 litre under-floor, baffled fibreglass tank.

Also in the engine bay is a remote control for the stereo system (for easy use when the boat's ashore or on its trailer), and the outlet for the auto-switched bilge pump is there too for convenient monitoring of when water is flowing and when not - rather than trying to peer over the gun'l to watch a topsides-located outlet.

The rounded foredeck sweeps aft and up to become the cockpit surround, and on the top of the forward edge is a carbon-fibre wind deflector. This looks quite racy and does a good job of allowing perfect forward vision from the front seats while still sending the slipstream up and over for protected seating positions. Rod spent some time fine-tuning the height of the deflector, and I'd say he's now got it just right. Along with the quiet Yamaha, the deflector kept sound levels in the cockpit remarkably low for easy discussion between skipper and crew.

### Rainbow's End

The F23 is a pot of gold waiting at the rainbow's end for anyone looking for innovative design, strong construction, excellent performance and awesome attention to



**ABOVE LEFT:** The 250 hp Yamaha HPDI 2-stroke proved a real powerhouse and an ideal partner for the F23. The big Yamaha was faultless in operation with quiet and smooth running despite awesome acceleration and a deceptively fast top end.

**ABOVE RIGHT:** There's thoughtfulness and attention to detail everywhere you look, including this carpeted storage spot for the winch handle at the front of the Force custom-built trailer.

detail in a smartly-styled skiboat-sports-boat. It's a full-on custom boat with the added benefit of that clever cuddy cabin, but at a production-boat price with ready-to-roll packages starting at \$57,000 on a tandem trailer.

The F23 is sensuous to look at and a real pleasure to drive. For more information, call Rod or Kelly Bickerton at Force Boats on (02) 4575 4038 or email [forceboats@big-pond.com](mailto:forceboats@big-pond.com). Ask about their regular email updates (informal and entertaining as well as informative) on all they're doing.

## THE NUMBERS

### Force F23

<b>Length:</b>	7.18 metres
<b>Width:</b>	2.16 metres
<b>Weight:</b>	1,100 kg approx
<b>Deadrise:</b>	21 degrees
<b>Fuel:</b>	230 litres
<b>Power:</b>	Yamaha Z250F HPDI 3.3 litre V6 187 kW (250 hp)
<b>Speeds:</b>	38 kph at 2,500 rpm 64 kph at 3,500 rpm 89 kph at 4,500 rpm 108 kph at 5,500 rpm 116 kph at 5,900 rpm
<b>Price:</b>	From \$57,000 with 225 hp 2-stroke outboard on tandem trailer Optioned-up packages around \$80,000