

F&B's
HOT NEW DESIGNS!

Ideal For Remote Gulf Country: **Ocean Cylinder 7300, Yanmar Diesel & Hamilton Jet**

One of the most unusual combinations we've ever tested, the OC-7300 powered by a 230 hp Yanmar diesel driving a Hamilton jet is not a combination that will appeal to many fishermen – but for Top End operators in remote parts of Australia, this could well be the perfect charter fishing boat.

Since the launch of the Ocean Cylinder range 18 months ago, this interesting looking craft has achieved a sterling reputation for its amazingly soft ride in choppy water from the extremely deep vee constant, (25°) deadrise hull. Combined with the ring of “Dee” shaped aluminium cylinders around the topsides of the boat, the Ocean Cylinder range has proven to be a real hit with a wide range of commercial and semi-commercial operators.

For them, the Ocean Cylinder offers a genuine alternative to the all-conquering powered catamaran that has for many years dominated the SAR and Patrol boat market in Australia. Whilst that is unlikely to change in the near future, the advent of the Ocean Cylinders has led to the development of a niche within this lucrative boat sector.

Ocean Cylinders don't need two engines. They can be carried on a near standard deep vee boat trailer. So the Cylinders are offering substantial savings



Far out ! The manoeuvrability (and stopping power - above!) of the modern jet drive is amazing. However, if you plan to stop this fast, it's a good idea to tell the crew . . . or issue raincoats ! (Wasn't me driving this time, honest !)



in purchase and operating costs to cash strapped Government authorities who are invariably fighting to sustain, let alone increase, their operational budgets.

That the Cylinders can offer cat levels of stability, with a ride that in many cases is actually softer and drier, has given them a vital edge against their well entrenched competition.

Last month, we had the opportunity of testing one of the most unusual versions of the Ocean Cylinders we've yet encountered. It was an

OC-7300 model (the same as F&B's own camera boat, *Shutterbug*) but instead of single or twin outboards, this new OC 7300 is powered by the much talked about Yanmar 230 hp, 4 cylinder turbo diesel. Usually, this light weight, high revving diesel is linked to either a MerCruiser Bravo One or Two sterndrive leg, or runs with a conventional bob tail gearbox as an inboard installation.

We've tested a couple of installations this way,

including a pair of extremely successful Kevlacat game boats.

Last month we published a report focussing on *Tanami*, a 9.0 m Kevlacat Flybridge powered with two of these remarkable engines, driving MerCruiser Bravo Two legs.

What makes this Yanmar 230 so impressive is that its packaged weight with the Bravo Two leg at 479 kg puts it very close to the long serving MerCruiser 5.0L V-8 petrol engine, which weighs just a few kilos less at 437 kg.

For architects and boat builders to achieve this much diesel horsepower from a package that only weighs 479 kg, is quite remarkable.

To then have this engine driving the long serving and extremely reliable Hamilton 291 series jet, linked three very good products – the OC-7300, the Yanmar 230hp diesel, and the Hamilton 291 jet pump.

Not surprisingly we were very keen to put this boat through its paces before it left Brisbane for its future base in Port Douglas, in Far North Queensland. There, it will be used in the tourism industry as a Reef exploring boat, taking parties of lucky tourists out from the mothership and into the coral atolls off Port Douglas where the big boats cannot go.

By using the Hamilton jet pump, the operator of this new rig has figured out he will be able to take his

This OC-7300 walkaround is superbly set-up for recreational sportsfishing, let alone a guided charter boat. However, for 90% of Australian sportsfishing grounds, a much better drive system would be the Yanmar 230 hp diesel driving the Mercruiser Bravo Two leg instead of the jet. Failing that, we'd have this awesome 26° deep vee hull configured with twin Honda 90's or twin Yamaha 100 4-strokes.



guests further and deeper into the atolls than ever before, so they can really see first hand the true beauty of the Great Barrier Reef – whilst he passes over the top of the coral leaving no trace of the boat's passage, and posing absolutely minimal risk to the delicate coral formations.

It's a clever package, and we were very keen to see how it worked.

On The Water Well, from the moment we stepped

onboard, it was obvious that this was indeed a very different sort of boat. Especially as we were stepping off F&B's 7.3m Ocean Cylinder, onto a 'sister' ship albeit with a totally different power configuration.

First off, I couldn't believe the noise of the Yanmar 230 diesel.

Despite a few patches of engine installation, the Yanmar 230 has a very distinctive "bark", and in the range from idle through to full planing speeds, the rig

was exceptionally noisy – so much so, it goes on record as one of the noisiest boats we have ever tested.

Ironically too, it's not really anybody's fault.

Because it's the first of these diesels Queensland Ships have installed, they had no idea the engine would be as noisy as it proved to be. Yanmar didn't let them know it was or wasn't (depending on your viewpoint) particularly noisy because they've become quite used to it in dozens of commercial

applications where it seems the noise level is quite acceptable. But whilst it might be acceptable in a fishing boat where the engine is buried down a hold 10.0 m distant and 3 bulkheads away from the skipper, in this installation it was unbearably noisy.

"With hindsight," Queensland Ship's chief Well Gamble ruefully admitted "We would obviously encase the diesel in its own double walled engine room, with appropriate insulation to all

six sides of the engine bay and the surrounding area.”

It could also be feasible to spray a special sound deadening rubber lining onto the aluminium in the areas adjacent to the engine bay, to minimise the amount of sound transfer that occurs along the frames and aluminium plate that forms the skin of this robust hull.

However, the diesel’s noise was not the boat’s only problem.

Like other jets the writer has tried, steering at low to moderate speeds is less than desirable, and does not compare well to a world dominated by “steering propellers” on outboard motors.

But sterndrives wander too, and objectively, I don’t think the wander from the jet through the marina was all that much better or worse than a regular sterndrive.

Of a greater concern to the writer was the very sharp lesson that I re-discovered half way down the bay. A passing cruiser wake taken casually (because I knew our Ocean Cylinder *Shutterbug* would simply clip through it with scarcely a bump being recorded) suddenly threw the boat into a 45 degree turn to port, as the hull decided to track along the cruiser wake!

Boy, did that send a wake up call to the skipper – *yours truly!* It reminded me very sharply that with a jet, you have to constantly steer the unit otherwise the boat will go off where it chooses to go or wave pressure takes it – and this, in a hull with an amazing 25 degree deadrise.

Dear oh me - It was all a bit of a worry! As I helped the two blokes who were sitting on the fore and aft seat in the cockpit of the boat back into their seats, I apologised for nearly throwing them out of the

boat.

I also decided I had to concentrate just a little bit harder at the helm than normal, even though we were trucking along in what was otherwise a dead flat piece of water.

To say I was less than impressed could well be the understatement of the new century.

By the time we got the boat offshore, things started to settle down a bit.

Everybody stopped looking nervously at the bloke at the helm (*moi!*) and wondering what they had done wrong to end up going on a boat test with Peter Webster in a diesel jet offshore which he patently couldn’t drive . . . but I not only got the hang of the jet and the diesel power band, but the magnificent qualities of this wonderful hull started to shine through.

Seriously, this OC-7300 hull is going to be regarded in history as one of the great deep-vee offshore hulls, that’s for sure. And frankly, I don’t think it really matters what it’s powered by – it’s every bit as soft as the best fibreglass boats in Australia and streets ahead of any ordinary plate boat.

Even with a jet . . . After a little while, I really got the hang of it, and I’d like to make it extremely clear that (all joking aside), this diesel jet combination really does work. The skipper just has to remember it is totally different from a shaft drive or outboard leg systems.

Once the skipper appreciates it is just like hanging onto a strong hose turned up to maximum pressure, it all works very well. If you keep a firm grip on the hose, it is easy to point it where you want to go.

That said, two other points must be noted. As a boat, motor and drive combination for trolling

lures or baits for game fishing, I think the diesel/jet combination is truly hopeless.

To get up into the 9-12 knot range where most high speed lures need to be trolled today, the boat is just awful. It’s not on plane, the diesel’s roaring its head off, and the Cylinder is going nowhere.

Back it off to troll at 4 or 5 knots, then it wanders all over the ocean to such an extent it might actually be enticing for the pelagics you’re trying to catch . . . if they don’t get a headache trying to grab hold of the lures !

On the way back in through the bar, I opened the rig up to work it fairly hard in the slop offshore, but once the pump started jerking about as I came out of the water, I lost interest in that exercise too.

I know it doesn’t hurt the pump to run dry occasionally, but it is a most disconcerting feeling, and it creates a sort of high speed chatter that you really don’t need when you’re working in heavy conditions.

Summary Look let’s not beat around the bush here. This OC-7300 is one of *the best* mono hulls available in Australia today, but it is completely knobbed by this unhappy combination of diesel power and jet drive.

Similarly, the Yanmar diesel installed with appropriate sound installation is a superb diesel power unit with an incredible 15-17 L/ph economy for its 230hp – and that’s enough to tempt anybody into a very serious look at this Yanmar. Yes, it is very noisy in its own right – but hell, for an extra \$500 of insulation and an hour or two on the shop floor building a proper engine box, the whole problem **could be eliminated**. One

thing I can promise – I’ll guarantee Queensland Ships build a double box for their engine bay next time, because both Well Gamble and his Technical Director, Col Svensson were adamant that “*Next time, Peter, we’re going to do a very different engine bay - believe it !*”

Similarly, I’d like to make it clear that the Hamilton jet worked fine for what it is. This is a special drive system for a particular application – and what we did with the boat was not appropriate to the application of a jet pump.

I have tested this drive system many times over the years, in circumstances ranging from gravel creek beds in the South Island in NZ to mud creeks in north Queensland. Make no mistake, jet pumps have a definite role in the big picture.

For Top End charter fishing boats, for example, where the skipper or guide wants to take his charter passengers down the river, over the bar and out into the Gulf, and then return to follow the rising tide at low water, there would be no better combination than this rig.

And what of the safety? It simply doesn’t get any better than an Ocean Cylinder. With 13 water-tight compartments, bullet proof build quality and self draining deck, it is totally unsinkable in any way, shape or form. Linked to the reliability and efficiency of the diesel, driving a jet pump with a single impeller and shaft, this \$75,000 combination is almost perfect for Top End, shoal water operation requiring Survey levels of stability and safety equipment.

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