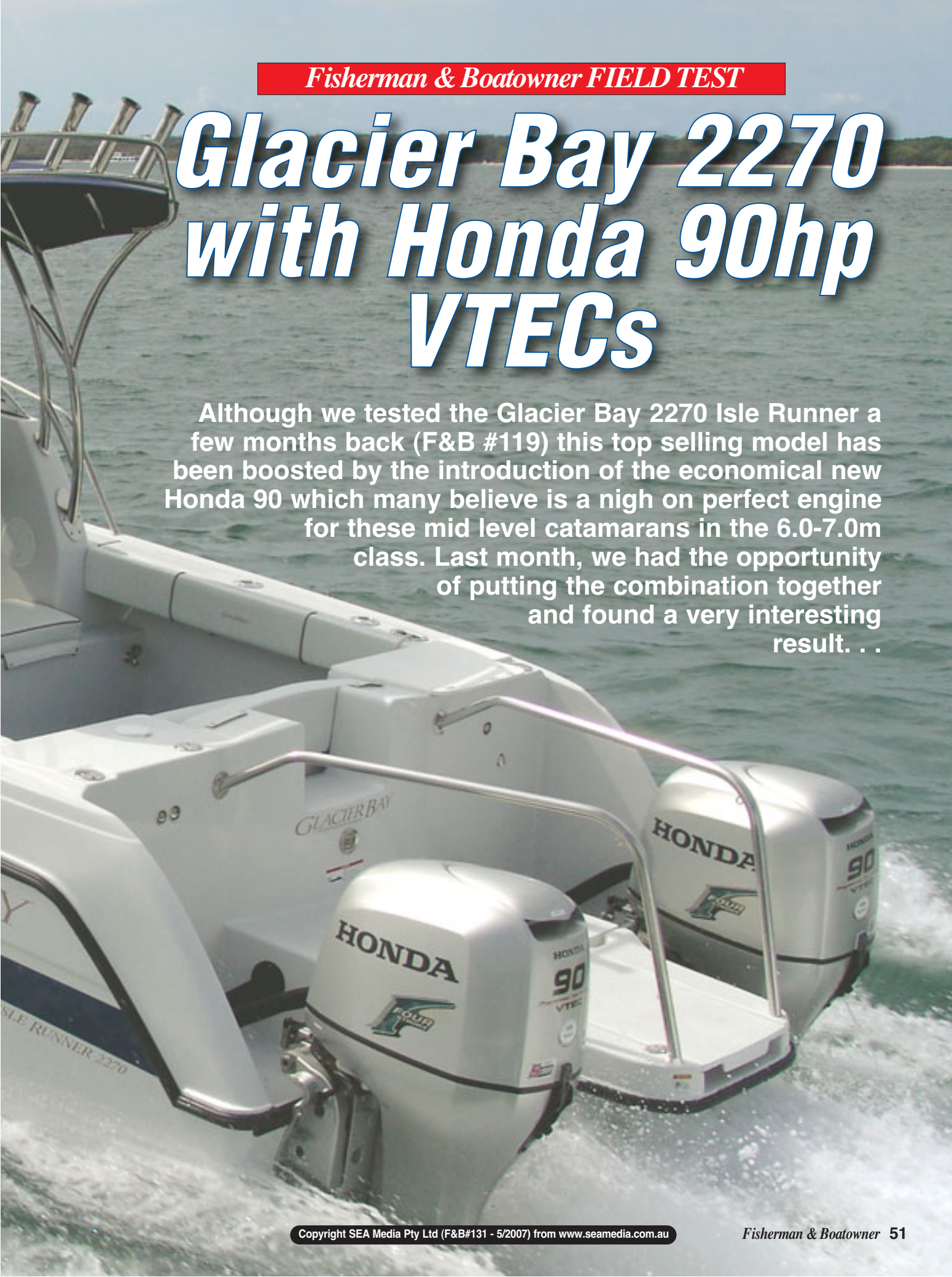
Glacier Bay 2270 with Honda 90hp VTECs

Although we tested the Glacier Bay 2270 Isle Runner a few months back (F&B #119) this top selling model has been boosted by the introduction of the economical new Honda 90 which many believe is a nigh on perfect engine for these mid level catamarans in the 6.0-7.0m class. Last month, we had the opportunity of putting the combination together and found a very interesting result. . .



The Glacier Bay 2270 Isle Runner is the top selling Glacier Bay model in Australia for some pretty good reasons – not least of which is that this soft riding, beautifully finished GRP cat made in Seattle, USA, offers a standard of engineering and building quality that puts it several rungs up the ladder compared to Australian standards.

The attention to detail in the Glacier Bays is truly incredible and leaves most cat enthusiasts hankering to try the boat offshore.

This we've now done on several occasions in several models, and can report that the Glacier Bays' offshore capability also puts them up there with the best of the Australian cats.

Last month, Runaway Bay Marine Sales, Bill Fankhauser's well known business on the edge of the Gold Coast Broadwater, put together a most interesting combination – the 2270 Isle Runner, fitted with twin Honda 90's – the new VTEC fuel injected outboards based around Honda's all-new 1496cc engine.

With a total weight (without the prop) of 163kg each, these engines are considered to be relatively light weight and just about an ideal unit for the 2270 Isle Runner.

Founder of Glacier Bay cats, Larry Graf, built the original Isle Runners many years ago with the original Honda 90's so he was very keen to see them tested with the new technology Honda 90s.

Glacier Bays are not high speed cats in the sense that many of the Australian models can carry huge engines and go very quickly. Instead, the Glacier Bays are more of a true semi-displacement craft, and in this case that is not a contradiction in terms. While most naval architects pull up at the description of "semi-displacement" or worst, the more modern terminology which is to call them "displaning", the fact is that these are genuine displacement craft that climb up onto plane, and for all intents and purposes operate reasonably efficiently in both modes.

Off plane, they provide wonderfully economical and stable performance (for instance, when trolling or just poking around) whereas "on plane", they offer conventional higher performance in the 20-30 knot region.

But they're not as happy in the high performance area as Australian cats because the Americans have retained the displacement hull shape and there are certainly some disadvantages of doing so. These boats are incredibly soft riding – and people with hip or back problems should gravitate to these Glacier Bay cats ahead of just about anything else.

The downside of this characteristic is that at the highest speeds in the performance envelope, the Glacier Bays tend to feel a bit 'tender' and they 'walk' from side to side more than (say) a Noosacat or Kevlacat, because they don't have the keel "flats" Australian manufacturers worked out quite a few years ago that were necessary for stability in the higher speed ranges too.

Semantics aside, the Glacier Bays remain a very impressive cat; I can think of no more comfortable cat to head offshore for a day's gamefishing than one of them – any of the models, because they all exhibit very similar hull characteristics – and the rougher, choppier it gets, the better these cats perform.

The New Honda

There's no doubt Honda have earned an exceptional reputation for longevity and reliability with the original, long serving 1590cc carburetted BF90 Honda outboard.

First tested back in 1996 by F&B, the BF90 has stood every test the boating industry, commercial industry and the fishing industry could throw at it. Hundreds are still powering away with truly staggering hours on their engine clock. BF90's that have completed 7,000 hours are quite common, and outboards that have done 4,000-5,000 hours are almost a dime a dozen – such is their capability to work hard in the field.

This is of course, the raison d'etre of the Honda outboard brand. Honda has worked incredibly hard to build a range of engines that are damn near bullet proof and that's another way of saying that they're all markedly under stressed, lazy engines and that's why they've worked so well for such a long time in the field.

It's debatable which engine has a better rep – the Honda 50 has been recorded going up to 11,000 hours, (!!!) whilst as noted, the BF90 carburettor model commonly runs 5,000 hours without anything more than its normal 100 hour service, and the newer BF150's are already carving out similar reputations in the field inside the couple of years they've been released.

This of course is music to Honda Marine's ears and what they are all about, so they've been reticent about releasing new models until they've been tried and proven to their own satisfaction before they release them to the public.

This is a welcomed and appreciated change in attitude to engineering practices we've witnessed in recent years, where various companies have elected to use the public as part of their test programs . . .

The New Engine

In this case, the new BF90DKO is a significantly changed engine. It's a totally different block, using a 1496cc engine with the bore of 73mm and a stroke of 89.4mm and a compression ratio of 9.7.

The valve train is driven by a single overhead cam and uses the VTEC (variable valve timing system) to open up and allow more fuel to flow in and more air to flow out of the combustion chamber when the load is brought on to the engine.

The maximum output is rated at 90hp at 5800 revs, although it works in a full throttle range of 5300-6300rpm.

It still uses unleaded gasoline which is good news because that's available pretty well everywhere and given that it's now a fully fuel injected engine, the issue of tuning the carburettors etc, has been replaced because the ignition system is now controlled by a micro-computer.

Now I know there are quite a few of our readers who would prefer it wasn't controlled by a computer, and the writer is one of those who has resisted change of this kind for many years – but I have to say folks, having used our own Honda 150's now for the last couple of years, it's time we acknowledged that computers are making these engines perform far more efficiently, and far more powerfully when we need it –

Fisherman & BOATOWNER Performance Graph

Glacier Bay 2270 cat / 2 x 90 hp Honda VTECs

	Fuel - One Engine		Performance Using BOTH Engines			
R/Min	**L/ph**	**G/PH**	**Nm/litre**	**Knots**	**Kms**	**Range**
1,000	1.26	0.27	1.38	3.5	6.5	594
1,500	2.40	0.52	1.02	4.9	9.0	437
2,000	3.30	0.72	0.95	6.3	11.7	408
2,500	5.40	1.18	0.66	7.2	13.3	285
3,000	6.60	1.44	0.90	11.9	22.0	386
3,500	10.20	2.23	0.72	14.7	27.2	308
4,000	**12.00**	**2.62**	**0.72**	**17.5**	**32.4**	**312**
4250	14.40	3.15	0.64	18.6	34.4	276
4,500	21.60	4.73	0.47	20.7	38.3	205
5,000	27.60	6.04	0.43	24.1	44.6	187
5,500	30.60	6.70	0.42	26.3	48.7	184
6,000	33.60	7.35	0.42	28.6	52.9	182
Propellers	*3 Blade s.steel 16"(P) x 48-16986 Mercury Vengeance*					

Range: *Nautical Miles, Based on 95% of the 2 x 225L tanks ie 428 litres*

and this particularly applies to the advent of VTEC.

Coming back across the Whitsunday Passage recently, we had a first hand experience of the awesome ability of VTEC working in rough conditions. Our twin 150's would open the VTEC system as the load came on *Far-Away*, and without me touching the throttle, you could literally feel the additional surge of power that was necessary to stop *Far-Away* bogging in the troughs in the 6' seas we were running. As the boat surged through the wave ahead, the VTEC would back off and the valve train would run as per normal – all of this without putting a finger on the throttles; it was totally controlled by the computer.

I must confess, it was one of the most exciting and dramatic examples of VTEC usage I've experienced in the field, and reminded the writer very much of what I used to love in *Dusty Rover* a few years back, when you'd get that massive torque of a big diesel surging through from the Yanmar to keep *Dusty* on the plane in the similar conditions – but here, we were doing it with twin 150 outboards, with the computer opening and then closing the VTEC system as the power was required. It was so much like a big powerful diesel it was very pleasing indeed – yet our overall fuel consumption for the passage was exceptionally good.

Now we obviously haven't had a chance to use the 90hp VTEC Hondas, but that pleasure I'm sure awaits us in the near future when we get the chance to run one of these rigs in really heavy conditions offshore.

Ordinary folk will find that another usage is much more common where smaller craft using a single 90 VTEC, pulling wakeboards or tubes will notice it very clearly when they throw the boat into a really tight curve and accelerate hard out of that curve, towing the tube, the skier or the wakeboard. This will also demonstrate the VTEC surge of power that is available from these new and more sophisticated engines.

The Glacier Bay/Honda Combo

Well, my first impression was that the Hondas seemed quite small on the back of what is a very big hunk of fibreglass that makes up the Glacier Bay 2270. This is not a small cat by any stretch of the imagination – and it's actually slightly over width for Australian towing.

So I was a bit curious to see how the Honda 90's would handle the displacement which Glacier Bay list at 1587.6kg. Now that's plus fuel, and in this case we were carrying half the capacity (450 litres) so all up, we were looking pretty close at one and three quarter tonnes on the water, driven by two 90hp outboards in what is not the world's most efficient hull shape, in terms of getting out of the hole and planing easily. To do that, you'd want to have a mono-hulled, pressed ally boat with a flat bottom. Certainly not two hulls – and especially, not two, fine displacement hulls like this boat.

Still, we took off from the marina very smoothly, the engines were murmuring in the background (you could hardly hear them) and with three of us onboard, (Bill Fankhauser, Ruth and the writer) plus our test gear and cameras, we left the marina for the trials running north and south on the Broadwater on a run out tide. This necessitates doing the trials in both directions, for an average of the performance, but otherwise, conditions were nigh on perfect.

As Bill opened the throttles of the

90's, I relaxed straight away because these are very punchy, torquey engines and they lifted the 2270 Isle Runner up and out of the water just as easily as they had with the 115's we'd previously used and tested.

A stop watch would probably have shown that the 90's were obviously a tad slower, but as we hadn't recorded the acceleration out of the hole with the original boat test, we couldn't make a specific comparison – but just on a 'seat of pants' feel, the difference was negligible.

The motors lifted the boat very nicely into the mid 4,000 rpm area and clearly, wanted to run around 4250-4500rpm.

Now if you look at the fuel chart, you'll notice that there's a huge difference between the boat running at say 4,250rpm (at 14.4Lph) and running at 5,000rpm – at nearly double the fuel consumption with 27.60Lph.

This is really important for boatowners to understand, and a phenomenal achievement for Honda.

To be able to run this boat at around 18-19 knots for a fuel figure of 28.8 for both engines is almost unbelievable - and if I wasn't sitting there watching the fuel being sucked down the glass vials with my trusty stop-watch in hand, I wouldn't have believed it possible!

But we did it not once but on three different occasions in fact, where we double checked the fuel flow at 4,000 rpm, 4,250 and later, 4,500rpm. And there's no doubt about it – at 4,250, the Honda 90's sweet spot, produced one of the most outstanding fuel figures I've ever seen in 35 years of doing these fuel trials.

Putting this new Honda 90 on lightly constructed aluminium boats of the Quintrex or Stacer kind of around the 5.0-5.75m length, and driven at around 4250 for 20 something knots, would result in absolutely amazing fuel efficiency.

Even so, here, where we had two of these engines running together, I thought that was an astonishing figure. Further down the performance envelope at 5000 revs where we were churning through 24 knots for a total of 55L (or 27.6L each) this too was a very, very pleasing figure.

Indeed, the maximum amount of fuel we could stuff through one of these Honda 90 engines proved to be 33.60 l/ph, and that's wonderful news for the Honda team and dealers throughout Australia.

Although fuel isn't quite the issue it used to be (no doubt thanks to it being an election year coming up in both the US and Australia), I'm sure that once the elections are over and we get back to normal market forces, the fuel issue will rear its ugly head again – it always seems to, doesn't it? And even if it doesn't, just being able to acknowledge that you could run a 90hp engine for around 20-22 l/ph at cruising speed is just wonderful news for all concerned.

Incidentally, just for the record, we did check if a single Honda 90 working on its own could bring the Glacier Bay home okay – and sure enough, it did. We found it would sit at 4,000 rpm for a comfortable, no-strain 'get me home speed' at 13knots, still planning easily, for a fuel burn of 19.5 l/ph. We could have pushed it a bit faster, but this was the speed it felt happiest – and we all agreed if you'd lost an engine 30 miles offshore, you'd be more interested in reliability than outright speed!

Overall Performance

I think the Honda 90 combination on the Isle Runner is pretty much the beginning of the food chain. I think there's a case to suggest that in some common sea conditions, the 90's would be the minimum you would need if you were working in a heavy bar situation with a largish crew.

Conversely, if there were just two or three of you fishing offshore and you're mainly trolling and gamefishing from somewhere like Bermagui, Exmouth, Cooktown and so on, the 90's would be truly a phenomenal package. But if you had to work with three or four blokes out of the Tweed, the Hastings or Lakes Entrance, then there would definitely be times when I'd be looking for more horsepower or a bigger blade area than the 90's allow. But I would stress that this is only in a rough sea or big bar environment that you will find on some of the east coast rivers on 'those' days when you come back in from wide offshore to confront a full run-out tide pushing into the waves driven by a strong summer nor-easter or worse, a big southerly. On days like that, you'd need to be a bit mindful about horsepower versus load versus digging your way out of some of the holes created by the pressure waves found in an open bar situation of that kind.

However, most skippers will never encounter conditions like that – and those that do, hardly need me to tell them how to set up their boats, much less how to drive it in those conditions.

So let's keep this in perspective – the 90's are excellent for 95% of situations, and only in extreme cases would more horsepower be warranted.

Conclusion

The Isle Runner 2270 as we've noted before, is a beautiful craft to use offshore – it's soft, dry, very easy to handle, and works exceptionally well in the 17-22 knot range. I don't think there are any softer riding craft made anywhere of this length, and they are an absolute delight to use.

Bill Fankhauser and his Glacier Bay colleagues around Australia are now learning how to do Australian-style biminis and canopies, and this is making the Glacier Bays even more practical for Australian usage.

As noted before, the engineering standard on these boats is simply incredible – and an absolute credit to the Glacier Bay people.

The Honda 90 combo in this case is exceptional – and very, very economical. It just doesn't get much better than this – and that's what we want to see in 2007.

A top flight cat with a brace of economical, ultra long lasting, VTEC engines from Honda Marine.

For further information, or to arrange your own sea trials, give Bill or Denise Fankhauser a ring on (07) 5577 4666 at Runaway Bay Marine Sales, or email ***sales@mustangcruisersales.com*** *and tell 'em F&B sent ya!*

To talk with David Fried, the importer / owner of Glacier Bay Cats in Australia, give him a ring on his mobile 0418 388 827, or email him ***david@fried.com.au*** *for the name and contact details of the dealers nearest your part of the world.*

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