

How important is your fuel economy?

By John and Catherine Hammond

I find this one of those baffling questions. Up to the present, it doesn't seem to have been a concern to the marine industry and even of late, with more talk about fuel economy, still the marine industry seems to be quite happy to put apparently larger than necessary engines in vessels. Maybe it's a boy thing, bigger being better. Maybe everybody is super wealthy and couldn't care less about putting a few thousand dollars of fuel in a go. Or maybe it's just an image thing with the boats sitting at a marina or mooring and only being used for one or two short trips a year. As somebody who has done a lot of sailing, but who still wants to fulfil the cruising urge by cruising to a lot of Australian destinations i.e. the Kimberleys or Tasmania, and who has now switched to power catamarans, the reality of how big Australia is and how many nautical miles have to be covered if you want to cruise these areas, the fuel economy becomes an important consideration. Obviously you can't have a 14 metre vessel attain the same fuel economy as a 10 metre vessel, but with careful choice of design, and a realistic approach to how many kitchen sinks you want to take with you, in a vessel that you can cruise comfortably on, a reasonable economy can be attained.

With all the media coverage of world demand for oil and its ever increasing cost at the bowser, one of, if not, the most important factor that concerns me with the thought of a power catamaran is how economical it is to run and how economical it will be to run in the future. Of course, the seaworthiness, usability and appearance are all factors but they are all quite easily achievable. To me, the holy grail is a catamaran that while having a miserly fuel consumption, still exhibits reasonable performance characteristics. For example, to be able to cruise at least in the 12-14 knot range and only use 14-16 litres of fuel per hour total for both engines. A lot of vessels claim to be able to achieve this, but if you have a careful look at

vessel weight, combined engine horsepower and engine manufacturers specified fuel consumption, my calculator has trouble doing the sums, and I can only assume that the total truth has not been told.

After just launching a new vessel, and being delighted with its performance, my next task was to complete an ocean passage to ascertain its real fuel consumption at cruising speeds. As the boat's home is Moreton Bay, it was decided to do a quick run up to Lady Musgrave Island and return to establish its fuel economy over a reasonable distance.

With the designer and myself on board, full water tanks (700 litres) and nearly full fuel tanks (approx 1250 litres total) and of course the necessary supplies for a couple of days, we forgot the fuel gauges and did a very accurate dip stick measurement in both fuel tanks. Departure from Raby Bay was 16.40pm on a Thursday afternoon and cruising at 12.5 knots, we were anchored in Lady Musgrave lagoon at 14.20pm on Friday afternoon. This included a quick stop in at Mooloolaba to pick up a lost phone and while there chucking some chicken on the barbecue for dinner, which cost us an hour and five minutes. Passage time up 20 hours 35 minutes and distance covered as per GPS 255 nautical miles. Lady Musgrave Island presented one of the best afternoons ever experienced in this anchorage, with the wind dropping off, so that by nightfall the lagoon was calm and with a cloudless sky and full starry evening, we enjoyed a few drinks with yet another barbecue for dinner. Morning saw us with an early 6am departure and deciding on a return trip via Hervey Bay through the Sandy Straits and over the Wide Bay Bar. By early afternoon we were at the Sandy Straits Fairway and by 15.55pm we had cleared Wide Bay Bar heading south. The bar, having an outgoing tide, gave us a small experience as to how the

boat could handle the rough stuff. We again stopped at Mooloolaba to pick up the designer's son for the last part of the trip back to Raby Bay. We anchored at 01:30 hours at Horseshoe Bay at Peel Island, having averaged 13 knots with a passage time of 19 hours and the distance covered was 249 nautical miles. Sunday morning we motored into the marina and refuelled to the exact level of our previous dip stick measurements. Total fuel used was only 560 litres, which was only half of the fuel we had on board, for a total of 504 nautical miles, or the distance from Brisbane to Jervis Bay.

This is the sort of economy that I feel that I can live and cruise with, and also gave me an idea of the range of the vessel. Granted this is only a 10 metre vessel, but a larger 14 metre sister ship that has 2 x 100hp engines has done a similar but longer economy test which at 1.3 litres per nautical mile over a distance of 1050 nautical miles at an average speed of 14 knots, proves that by good design, you can economically go cruising on a power boat.