



Neil Dunstan: 2-Stroke or 4-Stroke?

I don't really want to get involved in the argument about which is best, 2-stroke or 4-stroke outboard motors.

However with my recent discussions re the most appropriate outboard for the Quintrex 4.45 Dory which I have been working up to suit the various functions that I require, this question became something that I had to work out, so I thought that I might write down some of the interesting points that affected my choice.

As regular readers will recall, my Quintrex Dory was purchased twelve months ago. I wanted a very basic hull to allow me to modify some aspects of the boat to suit me, so the simple, two thwart, flat floor, unpainted unit was my choice.

I have since made numerous small modifications as shown in previous editions of F&B and most of the time I was running it with a Tohatsu 30 h.p. long shaft 2-stroke motor. I bought this motor from a friend who owns Sarina Marine at a good



Ebb & Flow

price and since it was only eight hours old, I thought that it would be suitable for a while till I had completed most of the modifications to the hull and trailer. I ran this motor for the twelve months and was surprised at the great performance achieved from a motor that is really too small for such a big tinnie. It was a typical Tohatsu in that it idled terribly, started first pull every time and went like the clappers when the throttle was opened.

At the time that I purchased it, I still hadn't made up my mind whether to set the boat up as a tiller steer or with wheel steering and forward controls.

As I started to get used to the seaworthiness of the Quintrex I started to travel out to some of my favourite offshore island spots out from Sarina Beach where I live.

The boat did the twenty five mile trip out to sea many times and I grew to be very confident in its ability if handled correctly, and due heed was taken of the weather forecasts.

During this time I started

to realise that at my age (71) holding on to the tiller for hours at a time was starting to get a bit hard on the old body, so it was about then that I decided to go for forward controls and wheel steering. Also whenever I wanted to start the engine, pulling on the string was a bit of a chore as was the manual tilt fitted, so I decided that electric start and electric trim and tilt was needed.

As I was very pleased with the performance of the 2-stroke and the fuel consumption was not bad at all, I decided to investigate the fitting of electric start, electric trim and tilt and forward controls.

I knew that I could get a control box and cables from Mark at Sarina Marine for very little, so began to price the extras needed to convert the throttle and gears to remote control and also an electric start option.

The power trim and tilt could be arranged by using an aftermarket retrofit system which was readily available. As I said previously, I was quite happy with the performance

of the 2-stroke and was prepared to do the mods and keep the motor, however, when the costs were added up, even with the various discounts that Mark was prepared to offer, it was still more than the motor was worth, so I scratched that idea.

The next thing was to decide what to replace the 2-stroke with, as I had no particular preferences regarding 2-stroke or 4-stroke. I really think that some people get a bit carried away with proclaiming the advantages of the 4-stroke and forget that there are some very real pluses for the 2-stroke.

So I started to investigate pricing various options using the price lists and specifications published in the back end of F&B. I expected to find a great difference in prices between 2-strokes and 4-strokes and while there were some real bargains in brands such as the Chinese made Parsun, the Tohatsu, and the Suzuki 2-stroke which is a fairly old design but is seriously competitively priced, the other brands such as



Neil had some good help for the installation and service of the new Suzie 50 on the Quinnie - primary work was done by Mark at Sarina Marine, with the important pre-delivery and installation checks by Ralph at Whitsunday Marine.



Yamaha, Mercury, etc, were not all that much cheaper than the 4-strokes.

This got me to thinking that maybe a 4-stroke may be a proposition as I do like the smoothness and economy of the 4-strokes and if they were only say thirty per cent more expensive, then maybe I could go 4-stroke bearing in mind that I am a pensioner and cost is critical.

Also as I sometimes do over two hundred hours a year, the running costs become a consideration even in a small boat such as the Quintrex.

After a number of phone calls, I found that I could get hold of a Mercury or Suzuki 4-stroke for a quite reasonable price and when Suzuki found out that I was thinking of a Mercury they came back with the best offer.

As I already own a Barcrusher 530 halfcab with a 115 hp Suzuki 4-stroke outboard which I really think is one of the best outboards available, I had no trouble deciding on the Suzuki. At this point I was planning on purchasing a

forty hp Suzuki but when I checked the weight of the forty, I found that as the forty and fifty are basically the same motor then there would not be any weight penalty using the fifty and as it was only a few hundred dollars dearer I opted for a Suzuki 50 hp long shaft

“.. When they stopped chuckling about my u-beaut console, they ripped it out and replaced it with a proper one .”

with electric everything.

The motor was ordered and duly arrived at my home whereupon I removed it from the packaging, and started to work out how to install it on my Quintrex.

It did not take long to realise that installing a sophisticated electronic fuel injected 4-stroke was a vastly different proposition to whacking on a simple 2-stroke motor which I had done plenty of times.

An urgent phone call to my mate Mark at Sarina Marine soon had the boat and motor at his workshop and he offered to install it for me for a very reasonable price, he said that he hadn't seen a Suzuki 50 4-stroke before and it would be a good learning experience for him.

When Mark had a look at my beaut homemade side console (F&B #161 last month) he nearly had kittens. His first comment was that it looked really ugly and seemed to have been made in somebody's shed. He had a good laugh when I told him that it was made *by me in my shed (!)* but it didn't stop him from calling up Adrian from the engineering shop next door.

that he knocked up in a couple of hours for a couple of hundred dollars.

To cut a long story short, Mark had the engine installed by the following day and I was really pleased with the very professionally finished article.

As Mark is not a Suzuki agent I had to get the pre-delivery service done by an authorised Suzuki agent, so

I hooked it up to my brand new Commodore wagon and took off to Whitsunday Marine at Cannonvale where Ralph looked after everything for me in fine style - and we subsequently towed it back to Sarina Beach for the first big trial run.

Since then I have done two fairly short trips as the weather has been terrible but I have got five hours up so far. The first thing I noticed was that it idled nowhere as smoothly as my Suzuki 115 and that surprised me a bit. However after a couple of hours it improved remarkably and it is almost as smooth as the 115; when it gets a bit more run-in I expect it to be just as good.

Secondly, the weight of the 4-stroke compared to the little 2-stroke is very noticeable, especially when taking off, as she tends to squat a little in the stern.

I expect fitting a hydrofoil may help in that area. It was surprising that the 2-stroke Tohatsu could put the big Quinnie up on the plane quicker than the 4-stroke even though it was nearly

half the size - but as soon as the 4-stroke got going a bit it really came into its own - and went like the clappers.

As the first two hours were kept at a fast idle, I used the time to do some trolling and she loves this travelling at five or six knots so that will be very good as I spend lots of time with lures out the back.

One of the 4-stroke advantages is better fuel consumption and when trolling for two hours she used less than three litres of fuel which is very, very good.

After four hours I was able to put her up to planing speed and found that it required about 4,200 r/min to get a good clean plane, compared to the 2-stroke which only needed 3,800 r/min to get on plane.

This is probably because of the extra weight, but it does plane very cleanly once up on top so I was not surprised that she flew when I gave her a short burst to see if the prop was correct.

The full throttle revs should be between 5,900 and 6,500 r/min, and when she peaked out at 6,000 r/pm on a still stiff motor, I reckoned that this was about right. The reading on the GPS showed thirty knots, and that is plenty fast enough for me.

Conclusion

On the argument between



2-stroke and 4-stroke motors, I would not pretend to be an expert but there are a number of things to consider.

If you are trying to set up a boat at the best possible price do not rule out a 2-stroke outboard. The cost of a 40hp outboard in 2-stroke can be up to half the price of a 4-stroke especially if you consider one of the cheaper brands, ie Parsun, Suzuki, Tohatsu, and to a lesser extent the Yamaha cv model which is a bit more expensive.

These motors are usually just as reliable as the more expensive brands but they



are usually not as smooth as a 4-stroke and use significantly more fuel - but if you are doing (say) one hundred hours or less a year, then the difference in running costs per year for a motor of forty hp or less is not a great consideration.

I did an exercise in the savings when using a 4-stroke motor in the forty hp class, and in general, it would take over twenty five years to save the extra cost of the 4-stroke in running costs if the user was doing less than one hundred hours per year - which would be 90% of people.

Also having owned both

Left: the console set-up took a bit of fiddling to get right, but the end game was worth it.

4-strokes and 2-strokes, I do feel that a 2-stroke has a lot more power down low and can haul a heavy boat up onto the plane easier than a 4-stroke. The disadvantages are poor idling, lots of smoke and a general roughness in operation. This of course is not the case with the two best known injected 2-strokes but I believe that they are quite expensive for what you get.

However if you want a motor that is as smooth as a Swiss watch, idles almost noiselessly, doesn't smoke, starts beautifully, is unbelievably economical and is a pure joy to own, then a Suzuki or maybe another brand 4-stroke is for you; you'll just have to pay a premium for it.

Neil Dunstan

Footnote: *It's been several weeks since Neil launched the upgraded Quinnie - the 50hp Suzuki has "Really settled in beautifully. The rig is very fast, and the fuel consumption is amazingly good. Very happy, Peter . . . I'm keeping a bit of a log so I can share the numbers with you a bit later on."*

F&B