



# POCKET ROCKET

Words & Pics: Glen Williams

Foxton's diminutive Jason Easton (aka Gimpy) grows spuds for a crust and rides a pretty trick race bike for fun. He holds a National title in the Formula 3 class and is planning a comeback for 2010 to repeat that performance with an all-new and fully developed V-twin machine. Glen Williams gives us the low-down on the man and his machine.

Jason's choice of machine is a hybrid and is built around a Tigcraft steel trellis frame. The Tigcraft Company is essentially a one-man band based in England who has been in the business of making specialist motorcycle frames

for more than 20 years. Tigcraft owner (Dave Pearce) received a phone call from Jason back in 2003 after he had read an article in a bike magazine about how Dave was fitting single cylinder four-stroke engines into specialist lightweight

frames and racing them in the European Supermono series.

Jason was growing tired of racing production bikes and didn't want to go back to racing 125GP bikes. The concept of a trick lightweight single cylinder machine tickled his fancy and it should



**QUICK SPECS:**  
 Make: Tigcraft Aprilia  
 Engine Capacity: 550cc V-Twin, ported heads, Lightened crank, optimised compression  
 Fuelling: Fuel injected, Tuneboy mapping tool, runs on 100% Avgas  
 Weight: 110kg with oil and water  
 Wheelbase: 1320mm  
 Wheels PVM 17" with interchangeable hubs  
 Cooling: Twin alloy vertical type  
 Suspension: Front: Ohlins fork (RS125 type), Billet Alloy aftermarket RS125 triple clamps  
 Rear: Ohlins TTX36, with RS125 linkage to a modified and braced alloy swingarm  
 Brakes: Front single 330mm, braking wave disc with Monoblock Brembo 4-piston caliper  
 Rear: Fully floating 200mm wave disc  
 Drive: Chain 520 pitch, TZ250 rear cush drive  
 Tyres: "D" compound Dunlop slicks  
 Front 95/70/17, Rear 115/70/17

suit his 65kg / 5' 9" stature. The bonus being that it would qualify to race in the New Zealand's Formula 3 race class as well. An order was placed and the bike was built in time to compete in the second half of the 2004 National Road Race season. This first Tigcraft machine was powered by a single cylinder 'stroked' YZ426cc Yamaha engine. He had immediate success and won two rounds on that machine that very year which had the then front runners of the class pretty worried. Engine problems in 2005 counted him out of the championship – but in 2006 Jason achieved his goal of winning the NZ Formula Three title on his Tigcraft single. In 2007 the bike was modified to run an 'underslung' rear shock (a-la John Britten's V1000) but this proved to be a bit of a disaster handling-wise and along with some engine problems it was a forgetful year (other than winning the GP title at Ruapuna).

### The Cunning Plan

2008 was a year for getting married to wife (Anna) and having their first child (Thomas) but early in 2009 a cunning new plan was hatched which yet again involved a Tigcraft frame, but this time it involved squeezing one of Aprilia's new 550 V-twin motard engines into it



Jason with son Thomas & wife Anna

and giving the luxury of an extra 20hp over the single cylinder racer yet only carry an extra 10kg in weight overall.

The machine took a bit longer than expected to come together as it was only No2 off the Tigcraft UK production line – however with the help of Jason Denton from Levin Motorcycles they managed to get the first version of it together in early December 2008 allowing just one test day before the North Island's Tri-Series kicked off. Jason comments, "It ran really well on its first shakedown run, the handling needed some fine tuning – but overall we were happy to take it to the Wanganui street races and confirm our entry for the South Island rounds of the Nationals." I can personally attest to the speed of the bike as I witnessed it first hand on the track. In retrospect this short testing period only has proven to be a problem with the un-sorted Aprilia engine suffering on-going issues with overheating this national's season. "At Teretonga we were pulling our hair out trying to figure out why the bike was overheating, and that along with a crash after an exhaust bracket failed pretty much ruined the first round. We went better at Timaru where we won one race (the first race win in the world for the V-twin Aprilia powered Tigcraft machine). Then at the third round at Ruapuna (which was a particularly hot day) the overheating problem resurfaced. We fitted a twin radiator setup and made some coolant ducting modifications for the fourth round at Manfeild but to no avail – it just kept blowing head gaskets!"

The team skipped the last round at Pukekohe preferring instead to put the time into making effective repairs. "We eventually traced the fault to the head gaskets itself and the way it seals which we have since modified



The Tigcraft next to Glen's SV650

with the addition of copper ring in the top of the barrel."

So ironically with the 2009 season over – Jason then went on to complete three straight test days without a problem, and it was at one of these I got the chance to catch up with man and machine for their story so far and also grab a test ride of the bike itself.

### Rubber Man

Standing beside the Tigcraft machine on a peerless autumn day at Manfeild, I figured that I had better do some serious stretching before attempting to fold myself onto this tiny machine – being almost as small as a 125GP bike (of which it shares many components).

Parked beside my own Suzuki SV650 it was obvious what the theory behind this bike was all about - smaller and lighter is better than bigger and heavier with a bit more horsepower.

Add to that the difference in rider sizes with myself being some 130mm taller and 15kg heavier than Gimpy and it was becoming obvious that I may just end up with a bit of cramp at the end of the day.....!

Interestingly though upon measuring from the rear of the tank to the handlebars the lengthways fit is almost identical to my own, however the seat to footpeg measurement was a good 60mm shorter on the minuscule Tigcraft. Jason was pretty keen to run the bike as much as possible on the day, so I wasn't about to get away with just doing a couple of laps on it either and would need to last a good deal longer in a tight position.

### Track time!

This is a pretty trick bare-boned race bike and it was a pleasant surprise to find the engine still fitted with the original starter motor, Jason was pretty keen to keep this on the bike as it makes things much easier if the bike were to stall on the start-line etc. Also the Suter brand slipper clutch that it runs eliminates the option of 'bump starting' the machine. There is a lightweight 'race spec' charging system fitted which supplies just enough voltage to keep the on-board battery charged up and the bike's fuel pump and ignition happy.

When first riding out down pit lane the bike actually wasn't an overly tight fit at all and after two warm up laps to acclimatise to things such as lever positions and the reverse pattern race gear-shift being used, it was time to get on with the job.

First impressions were that the bike's power delivery is pretty linear and makes what feels like good power and straight-line speed right through

to the rev-limiter. The crankshaft has been lightened and balanced which assists the blue-printed motor in being both responsive, willing to rev and smooth. It's happiest in the upper third of its operating range and there is not much in the way of vibration as such. It has just enough vibes to give it some character though and the induction noise through the airbox and exhaust tone from the hand made system (with a titanium muffler from a Triumph) is very nice indeed.

### Electro-Trickery

The electronic fuel injection overall was pretty good and the bike only exhibited a slight fluffiness when on partial throttle opening mid-corner, no doubt a result of the fact that it has not yet visited a dyno house to fine tune the fuel maps currently fitted. The team has been so busy chasing other issues so far in this project and they simply have not had time to fit in any dyno work. There is a 'Tuneboy' mapping system fitted to the bike allowing infinite adjustment of fueling and ignition timing and I have no doubt that the fuelling response will be tidied up quite quickly.

The electronic dash was being temperamental on the day of our ride with the digital display cutting in and out. The dash makes up part of an elaborate data logging and GPS module. Information on lap time, track split times, engine and ground speed etc is all standard, as well as a shift light and a 'track mapping' module that works off a GPS signal and effectively 'maps the track' as you circulate. All of this information is downloadable via a USB port and can be studied on a laptop at your

leisure. Fortunately for Jason - water temperature is also monitored .....!

### Going Round The Bend

The corners are where one would expect this bike to excel and it doesn't disappoint. Through the corners the bike feels sharp and precise. Input through the bars is minimal as would be expected of a bike with these dimensions and it was particularly responsive mid-corner to only the slightest of bar pressure.

On the day the process of entering corners was a little different though, with the front end feeling vague into some of Manfeld's bends and yet for some reason excellent into others. This seemed to be most noticeable into turn one and also into 'Higgins' corner which leads onto the back straight. Both of these turns keep you on the front brake for a long period more-or-less upright and it was at that point that the bike seemed a little lost.

Jason comments, "We think that it's to do with the current oil level or spring rate in the Ohlins front forks, we will be trying different setups over this coming winter to try and improve that aspect of the bike." The team were chasing handling gremlins at Ruapuna this year also, but it's clear that they are making solid improvements in this area with every outing that the bike has.

The large single 330mm wave front brake was powerful enough, however with the front end wandering around as it was, it tended to make you back off from using it close to its full potential. Jason was trialling some EBC brake pads for the day and is contemplating that brand or the



Brembo items that are supplied for the Brembo monoblock radial caliper fitted to the front end, and this also may have made a difference.

There is an option to fit a twin front disc setup to the machine as well and this might be considered in the future if the single disc proves not up to the task.

Exiting corners the bike responded well to being on the gas and had no propensity to run wide - it made you well aware though that you were trying to put 70hp-plus through the 115-section rear tyre. The choice of this skinny Dunlop rubber as used on a Honda RS125GP bike was driven by Jason's preference to have a highly responsive motorcycle - and I think he has achieved that. The new bike's weight bias which is 55% / 45% front to rear, and extra hp that this engine provides

has meant some small changes were required to his riding style compared to the single, says Jason.

The low seat height eliminates the need to stick your knee out or get off the bike much as they pretty much slam into the ground straight away, as you are so low to the ground to begin with. Not a bad thing really, as this machine's light weight does not respond well to (and does not need) you to be moving your body mass around on the bike with any aggression or vigour. My size 10 boots also dictated that I keep my toes tucked well inward for the same ground clearance reason.

Stability was top notch both in astraight-line, mid-turn, or when changing direction. The Ohlins side-mounted steering damper was set on quite a low level of dampening and this was all that was required.

### Wrap-Up

It is a credit to Jason that he made his bike available to be tested by BRM, and of course one of his competitors (me) - especially when it is still very much under-development. Jason has not put a lot of time into making the bike look pretty as this has been secondary to getting it racing competitively. However he is really looking forward to powder coating the steel frame and bringing the bodywork and paint up to scratch. I am sure it will then look as good as it goes!

I suspect that it will be a very competitive machine come this year's nationals and those of us that will be out there in the Formula 3 field racing against him are going to have to pick up our game another notch to keep up. Damm it!

