

HEY MATE,

I Think She's Running On Three....!

BRM's man in the paddock, Glen Williams tests a bike that highlights that good old Kiwi ingenuity is alive and well on the road racing scene.

An invitation to ride a special project bike that engine builder guru and part-time racer Chris Osborne had put together was easy to accept. The bike in question started life as a four-cylinder Suzuki GSX-R600K6 - but was now running on only three cylinders. This was by design and not by mistake. Here's the run down on man and machine.

The Mad Scientist

Chris Osborne's pedigree as an engine builder and motorcycle technician needs no introduction - those in the know will be aware of his long love of motorcycles and in particular road race machines. He is a bloke with many years experience spanning for various teams around the world, including a full year in British Supersport, and almost three in the

World Supersport paddocks. He's also helped local lad Craig Shirriffs to many victories both in New Zealand and overseas. Chris's pedigree means that he can build fast, strong engines in his sleep, and as a part-time racer he is constantly tinkering with bikes. Recently has had an idea for a Formula 3 bike in the back of his mind, as he explains.

"I had this idea to build a 450cc Formula 3 bike by simply taking a modern supersport 600cc four-cylinder machine (with 120-odd hp available) by simply pulling a plug lead off it and see what power it would actually make on a dyno, while running on only three cylinders." Which is exactly what he did - and he wasn't disappointed! "The bike still put out reasonable power - and showed potential for lot more if we took the concept a little further and eliminated any compression from the non-firing cylinder," which was step two. Confidentiality does not allow me to say how Chris has done this, but let's just say he's used his clever engineering talents to make it happen. With the basic engine work done step three



Mr. Osborne

was to get the bike fuelling correctly and then take it to the track and ride it.

450 Reasons Why

"By completely deleting a firing cylinder from the machine - we are left with just under 450cc capacity," says Chris. This conveniently fits in with the capacity limitation for multi-cylinder machines in the Formula 3 road race class in New Zealand.

There is no doubting that a developmental bike like this is very fitting for a 'formula class' as it is the one and only race class left that allows for entrepreneurial individuals such as Chris with good old fashioned Kiwi ingenuity to develop ideas and 'have a go'.

"With the engine at 450cc hopefully we will fit within the rules and we can go onto develop that. The current crop of 400cc and 450cc four-cylinder machines in the class are mostly more than 20 years old now, a lot of these bikes have seen better days and parts can be in short supply for them. They can also be somewhat fragile when developed, - this is not the case with a reduced cc 600 - the bike is modern, strong and under-stressed. Plus there are a plethora of performance parts available for them."

I would tend to agree that this



option is a viable alternative for the class - as there are plenty of older race 600s that get retired after only one or two years of service and they would make an ideal start base for this type of project.

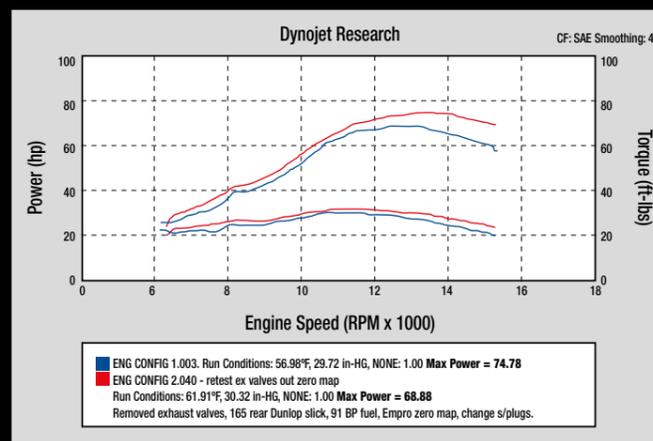
This concept is also very likely to give a well-developed SV650 F3 bike (like my own) a good run for its money (bugger).

How's She Go?

"I think she's only running on three mate," were the words I heard as we droned out of the pits on this odd sounding machine, the noise of which could only be explained as gruff yet pleasant and not unlike a small GP bike. This was the track debut for a machine that on first thought you might think would run like a hairy dog with a bad limp - but the reality was quite different.

Chassis-wise the 2006 GSX-R600 felt exactly as it should, as good as the day it was produced, only better with Chris having fitted a trick Öhlins rear shock and a some minor tweaks to the front valving - so the bike felt a bit like home to me straight away and after a couple of warm up laps it was head down, bum up.

First impressions are all important - as they are quite often bang on the money when trying to draw comparisons. The gearing fitted for the day was as Chris put it 'a best guess', and it wasn't a bad one - however it wasn't ideal either, with the bike caught between gears at two or three places around the circuit. This did have the benefit of highlighting though a slight lack of midrange punch for getting out of corners (compared to say a strong SV650). I could have lived with this if the power came on with a bang at the top - but that wasn't to be either. The power simply built in a linear and almost 'lazy' fashion. That's not to say there wasn't enough of it



Bike and builder in perfect motion.

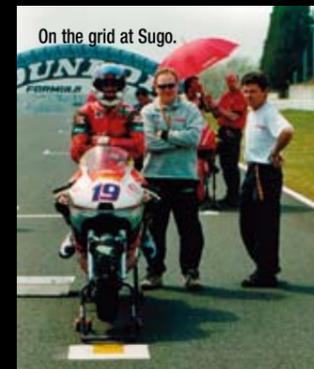
there (Chris's dyno figures of 75hp certainly confirmed it wasn't slow), however I think the combination of the current weight of the machine (it was basically stock) plus virtually no development work on fuelling or any other modifications meant that it was lacking a bit of 'punch' and or any discernable power-band. The engine revved cleanly through to an indicated 14,500rpm, but struggled for the last 1500. Chris comments, "I'm pretty confident that we will find up to 10 more hp with some fairly inexpensive engine work and this combined with a weight loss program should have the bike pulling out of corners with a lot more vigour."

I think he is right, and would hazard a guess that the engine has great potential. We were pulling low 1.17 lap times on a slightly damp track after just a few laps - indicating the bike has much merit.

The Chassis

The Suzuki K6 600 was designed for a hell of a lot more hp than this wee triple was throwing out, so to say that the chassis was capable would be a gross understatement. My guess would be that you could maximise this even further by setting the bike up to hold high mid-corner speeds and move away from a set up that favours it driving out of corners, like a 600. Chris commented that it was set up pretty steep at the moment and it definitely turned into the Manfeild corners on command and held a line easily. A Brembo master cylinder, quality brake pads and braided lines combined to stop the bike quickly and consistently, with Dunlop slicks providing impressive grip.

A host of upgrades could be put into this bikes chassis and these are readily available, as you would



On the grid at Sugo.

expect for a machine that is raced extensively worldwide. The bonus of this is these parts are relatively cheap as well as many racers simply sell them off to move up to the latest and greatest supersport contender.

Show Me The Money

Believe it or not Chris has built this bike for less than ten grand and that includes the bike! For the money - it is one hell of a bike with good potential and I am looking forward to riding it after its next stage of development. Chris says that if a client were to bring him a 600 motor he could convert it to this motor's current specification for less than \$1500 - now that's gotta be worth considering. Ideas like this could help rejuvenate the Formula 3 class and I for one welcome it with open arms. Whether the likes of MNZ and my fellow competitors agree is anyone's guess, but it's hard to knock innovative thinkers like Chris Osborne that have a hunger to do something a little bit different like this now and again.

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If you would like to contact Chris for further information on his bike or getting one for yourself, drop him a line at chris@4d.co.nz