

As some of you are aware, I love Suzuki Katanas. I'm talking about the original Katanas that ran between 1981-1982, as GSX1100SZ, the 1983 model GSX1100SD and GSX1100SE for 1984. Later models were also brought out right up to the early 2000 for the Japanese market, including the Yokohama GSX1135R Katana Limited Edition. The afore-mentioned models are generally the ones seen in Australia and this must also include the GSX750S series and the GSX1000S model brought out for racing due to restrictions limited to 1000cc. My interest are these early GSX1100S Katanas only, as many other later models were designated as Katanas, especially in the USA.

The old Kats came with a stonking engine and weren't a bad handler in their day, albeit on the heavy side, but their brakes to me left a lot to be desired, even though they had twin discs at the front and one at the rear on all models. Keep in mind that in their day, they were the beginnings of the super bike and many a race was won on these Suzukis.

As some of you know, I restored my 1983 GSX110SD about 3 years ago now, and I have wanted to build another bike for some time. I wanted to go with the old look of the Katana, with modern suspension, brakes and tyres. So where do I start. Over the last couple of years I have been working towards this project by purchasing a few odds and ends such as modern Front End, Swingarm and Rear wheel. The hardest part had been getting hold of a good GSX1100 Katana frame. But, due to a cloak and dagger effort between my son Luke, and my beautiful wife Leonie, they conspired with my Nephew in Brisbane to get a hold of a 1981 Suzuki GSX750SZ Katana frame, which Nephew, Aaron had been parting out at the time. You may not be aware, but the early Kat 750 and 1100 frames are exactly the same, except for the placement of the lower engine mounts.



Photo #1 - 1983 GSX1100SD Frame.

Photo #2 - 1981 GSX750S Frame.

The early '81/82 750 frames have their lower engine mounts further back than the 1100's, as you can see from the photos. The frame on the left was the beginning of my GSX1100SD build and the one on the right is the beginning of my 750 build. I decided that this one would be a single rider setup, so all rear foot peg brackets have been removed, as has other mountings for battery box, and electrics, etc. Centre downtubes gusset has been removed and will be replaced with larger diameter gussets. Engine Coil mounts have also been removed from up under the steering neck, as the coils have to be removed every time you want to remove the Engine tappet Cover - Pain in the butt. The coils will be moved in front of the Steering head, as part of the Nose Fairing frame.

Okay, so I don't have a decent workshop, nor a lathe, milling machine or a welder, but I wanted to do as much as I could myself, but I also know my limits. I am in no way an engineer, or even a mechanic, so I have researched a lot on the web. I tend to deliberate and

over think things way too much, and then second guess myself along the way. The three bike builds that I have taken great interest in on the web and have based my build on have been from Steve at Lucky Seven Motorcycles in the UK (<https://www.facebook.com/luckyseven.motorcycles?fref=ts>), Porky and Steve (Strangewayz) had their post on OldSkoolSuzuki website, also from the UK (<http://old-skool-suzuki.proboards.com/thread/774>), and last but not least, Rob Wilton from Canada (<http://www.parts.suzuki-katana.com/>). I will take no accolades for this work but will pass on these on to the guys who experimented and made things happen. Thank you guys. I wanted to strengthen this frame so as to be able to handle modern suspension, modern brakes and above all else, modern sticky tyres. I may have gone overboard a little with gusseting of the frame, but compiling some ideas from the guys above, here below is what I decided upon.



Photo #3 - Gusseting under the the main tube in neck area. Plates to be welded around same area. Photo #4 - Plates to be welded in rear of top Main-frame tubes. Gusseting in Rear Main tube area.



Photo #5 - Angles to be welded in main & down-tube

Photo #6 - Gusseting between front down-tubes.

Gusseting in rear



Photo #7 - Different angle of Photo #5



Photo #8 - Rear Set Mounts to be welded.

Bandit GSF1200 Swing-arm in place.

The pivot is narrower than the Katana, so custom bushings are required. Single shock mount has been removed and custom swing-arm mounts to be welded in place. Both bushings and mounts available from Rob Wilton (www.parts.suzuki-katana.com) arts.suzuki-katana.com site



Photo#9 - Front End in place for the time. Steering Damper in place - Mount to be welded in place.



Photo #10 - Bought this lovely 2000 GSF1200 Bandit in excellent condition with the intention of removing engine for this project

This idea came from Steve (Strangewayz) and Porky. Damper is from Honda RX450.



Photo #11 & #12 - Bandit 1200 engine is effectively the same engine as the GSXR1100. Exactly the same external dimensions. Bandit engine is 1157cc whereas the GSXR1100 started as 1052 and the last was 1127cc. Bandit runs different cams and slightly lower compression. The GSXR's put out more horsepower but due to the Bandit's torque it's a stump puller. The standard 1200 engine puts out about 95hp, but it doesn't take a massive amount of money to get 120>130hp or more out of this engine .



PART TWO

Now comes the interesting part. The welding. So along comes my good friend and fellow member of the Cairns Motorcycle Restorer's Club, Jim McKenzie-Smith who has offered to do the welding for me.

I have known Jim for close on 20 years now through our workings in the Aviation industry. Tomorrow is Good Friday, and I am heading down South out of Cairns to meet up with Jim at his home to start on this project.



Now Gary, as a good aviation person is worried about rust so he gives me a Katana frame completely covered in Lanoline – to weld !! After sandblasting and two washes with pure acetone, I still can't get the weld working properly, never realised how good Lanoline is. LOL.



The start of the welding. 20 extra pieces added to the standard frame.



Phase V

Wheels back back in frame.



Head back from Myers' Engineering after Valve grind, new seals, etc. Light port and polish by yours truly.



Coming together now. Barrels had light hone done by Steve at Myers. New rings fitted to pistons – Standard bore. Head lightly port and polished. Engine is back in the frame. Not quite complete.



Head torqued down, GSXR1100 cams, Ape cam chain and slotted sprockets in place. Valve rockers adjusted and rocker cover bolted on.

Bodywork set in place to check fitment. Small issue with nose cowl as expected, but not as bad as I was thinking. Small bit of cutting back on top fold near tank and same at bottom of cowl allowing clearance for the forks. Not as much clearance as standard but should be enough. 220mm standard forks outer to outer edge, 265mm on the upside-downers.



Yellow front guard will not be staying this colour but will match rest of bodywork. You could notice that fuel tank is not cleared. Tank cannot be purchased from Suzuki finished like all other panels. Tank is done in Silver Basecoat from the factory, ready for addition of other colours or just cleared for '81-'82 model. Other colours were added to tanks on later models, Maroon or Blue down centre on '83. The '84 and '85 model came with larger area of Red or Blue down centre. The '83 model in USA came in Silver with Blue Side Stripe decals. I have contacted a couple of our local Cairns painters for quotes for paintwork.

You cannot purchase a new 81/82 original seat from Suzuki. The replacement seat is not the same material fabric or colour. I am now waiting for my seat to come back from Mark at Sugar Coast Canvas & Trimming in Bundaberg. I am advised (from my Nephew, Aaron) that Mark can get very close to original fabric and colour. Aaron had one of his seats done by Mark and he also has a new replacement from Suzuki. I am really looking forward to getting it back in a couple of weeks.



What next? Having trouble getting a taillight bracket as cannot purchase new. Aaron again may be able to help me with this. Exhaust is the next big purchase. In the mean time, I have to get help with electrics, mainly deciding on Instrument panel as I want to change from original. Currently have a spare GSXR1000 panel but wiring and connectors are obviously different.