

# Centerfolds & Very Special CBXs Team



**Team Leader: Stephen MacLean** (photo at right)

To submit an article please contact Stephen MacLean via email [swam45@sympatico.ca](mailto:swam45@sympatico.ca). Current article format/content, but be creative. 250-500 word count in MS Word or email format. Jpeg pictures please. Submit text files and picture files separately (do not embed pictures in article). Regular mail/photos acceptable.

## WORK IN PROGRESS

*Stephen MacLean's "Very Special" Late Model*

*My love of things mechanical, loud and fast started when I was very young – about 1.5 years old*

### MIKE THE BIKE IS STILL WITH US

I saw Mike Hailwood race at Mosport on the 250-6 and 125-5, not to mention numerous car races. This led to a fascination with bikes, cars and aeroplanes. My first bike was a 1972 Honda 450, which I later modified and raced. All this led to my first career in Mechanical Engineering, which culminated in designing engines for a living. Designing and simulating engines with computer tools that I developed led to a second career in Software Development and Information Technology, which is where I am now.

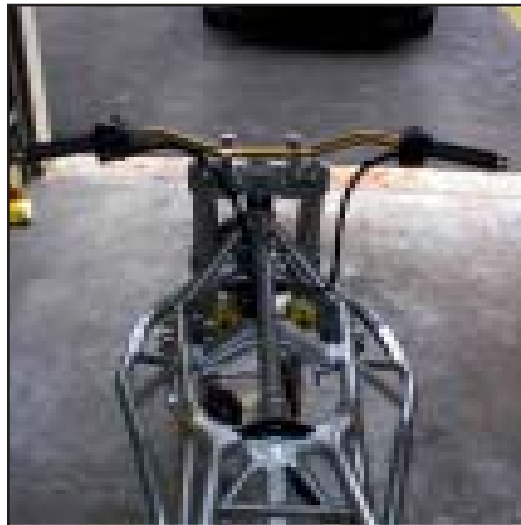
### MY FIRST CBX AND NOT TOO IMPRESSED

I had always wanted a CBX – I saw a severely modified one race at Sanair in 1980 and I'll never forget the insane howl that thing put out! I had joined this august body in early 1999 and this journey began in mid October, 1999, when I acquired a bone stock 1981. I rode it once before buying it and having recently had a modern sport bike, the weight and handling did not impress me too much, but love that engine! For me, the magic of the CBX has always been in the engine.

### FROM STOCK TO A "VERY SPECIAL CBX" IN 482 EASY STEPS AND STILL NOT DONE

No matter. I had long ago decided that if I acquired a CBX, I would modernise

the handling bits and take as much weight off it as possible, while retaining the overall look and feel of the original – no small task. Within a few days I had the bits off and had started welding the perimeter tubes on the frame. The idea of the perimeter frame is to increase the stiffness of the frame by increasing its moment of inertia.



I measured out equal lengths of square tubing and welded them onto the steering head tubes as shown below.

I then bent the tubes around the frame to a marker point and welded on the first truss tube. I then measured out equal lengths of round tubing and welded them onto the square tubes and added the second truss as shown. I then bent the tubes (a fairly complex process) and welded them onto the

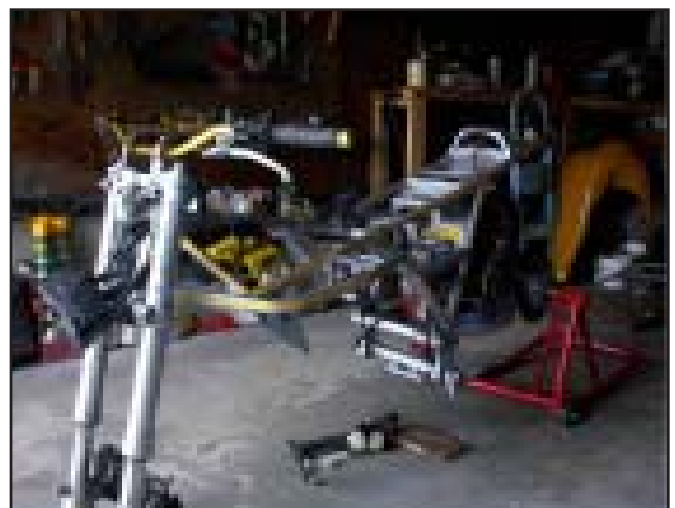
lower frame near the shock absorber mount truss.

This, of course, was just the beginning, as there was much welding, fitting and smoothing to be done.

You can see the stiffening truss in the middle of each new side tube. One downside of this is that I had to relocate the petcock in the tank - it's easier to use at the back of the tank anyway.

The sidestand was relocated to the outside of the frame and welded on there, plus stiffened by a bar through the frame. Bracing trusses were then added to the upper shock bracing. I elected to use braze welding in order to minimise the stress on the frame.

For suspension, I had long ago decided to use a single sided VFR-750 swingarm and GSXR-1100 inverted forks for my front end – I really like the looks of those massive 52mm inverted forks, not to mention that they work really well too! Also included in the package are the 6-pot Tokico



brakes and 320 mm rotors. In order to install the forks, you must press the steering stem out of the CBX tree and press it into the lower triple clamp of the GSXR.

Since the upper stem of the CBX tree is 1 mm bigger than that of the GSXR, you will need to bore out the hole in the GSXR upper clamp to mount the clamp. Because the GSXR forks are shorter than the stock CBX forks, I made up a dropped upper triple clamp to retain some ground clearance. This was further necessitated by the clip-on handle bar clamps - they clamp on the upper fork legs and provide a standard mount for the gold Renthal Superbike bars. In the picture at right you can almost see the finished gas tank with aircraft style filler cap and breather fitting added.

I had also decided to relocate the instruments off the triple tree to the fairing bracket - the necessitated extensive modifications to the fairing bracket, as well as the creation of a custom dashboard to house the CBX instrument cluster and 4 new gauges: oil temperature and pressure, clock and fuel gauge (which necessitated mounting a fuel sender in the bottom of the modified CBX tank). The picture at right depicts the modified fairing bracket and instrument cluster, as well as giving a view of the GSXR 1100 front end and brakes, as well as the GSXR 750 wheel.

I really love the looks of a single sided swingarm, as well as the convenience of easy wheel changes and having no alignment issues to worry about. Yes, it's probably a little heavier and it's actually somewhat longer than the stock CBX swingarm, resulting in a slightly longer wheelbase than stock (about 1.5"). However, with the smaller 17" rims and the shorter GSXR forks, it's probably about the same wheelbase as stock, if not slightly shorter.

The upper shock mounting brace had to be moved upwards to accommodate the VFR swingarm and shock. The bell

crank pivot mount was welded onto the existing centre stand brackets and braced with tubing. You need to take out the swing arm pivots (they unscrew from the frame and one has a collar to adjust the position of the swingarm, left to right) and machine them out (on a lathe) from 16 to 20 mm as the VFR swingarm pivot bolt is 4mm bigger.

The VFR swingarm pivot bolt is also much shorter, so you will have to devise a revised peg/lever mounting - I made my own rearsets anyway. The battery box must also be relocated, as the top mount of the VFR shock is about 2 inches higher, so battery box is the same width as the stock one, but about 2" shallower.

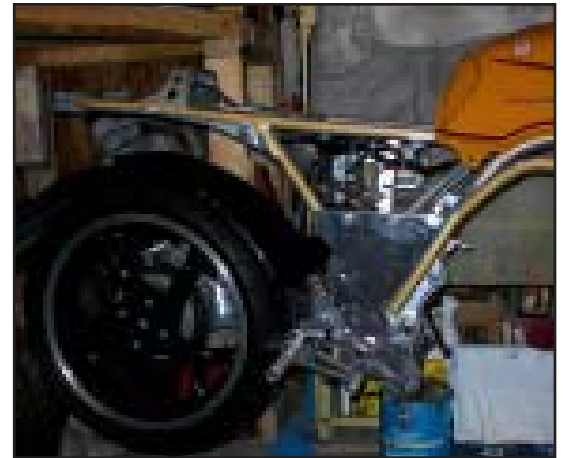
I elected to go with the stock VFR rear wheel - 5.5" x 17, with a 180 x 55 tire. The challenge is matching it, as the stock GSXR wheels are 3 spoke and very different. The only option I have seen to date is a DYMAG magnesium 5 spoke. Very nice & very expensive!



DO NOT use an F2 or F3 wheel, as the bearings are too weak. The stock VFR front wheel has no speedo drive, as they take it off the countershaft on the VFR! I elected to go with a 3-spoke GSXR 750 wheel for the front - the discs are so large (320 mm) that you can barely see the front wheel.

Here's a side view of the swingarm, side stiffening plates (which I made up from 5/8" Aluminum plate), rear set(s) and

modified side stand, as well as the GSXR seat side panels, integrated with the stock CBX handles into the CBX seat frame and taillight assembly/license plate holder (with an aftermarket tail light, as the stock one was too big (and



too ugly, IMHO) - this was a LOT of work. The CBX side covers were also substantially modified to tie in with the side stiffening plates, the perimeter frame rails and clip to the seat panels. The seat shown is the Corbin quasi-solo seat - also depicted is a huggar for the VFR swingarm, acquired from the UK.



In the last year, I have done considerable work on the engine, as follows : Arias 1163 kit, '79 cams and advancer; Danish Oldham couplers; Modified intake and exhaust valves – cut down for increased valve area; Ported and polished head; K&N filters and Stage III Dynojet kit; Customised Kerker headers with handbuilt collector tubes, bolted to Supertrapp SS canisters (picture, a work in progress, shown at right); Accel high voltage coils; CBX Australia Alternator; Custom (automotive) Aluminum oil cooler, with SS braided lines.

The bike as you see it was pretty much complete by the end of the year in 2001.

I started a new job in December, 2001 and it has been very demanding, so I have not had much time to work on the project.

The fairing you see in the pictures started out 'life' as a stock CBX fairing, believe it or not! I installed a modern bikini fairing in the centre and cut down the stock CBX fairing to the side profile shown. The stock CBX mirrors have been retained and the screen has been cut down to fit the shortened profile – turn signals are aftermarket and have been integrated directly into the side of the fairing. The stock fairing bracket was modified as depicted above to bring

the fairing in closer to the frame to tie in with the integrated dash board, which contains the 4 new instruments listed above. The pictures below depict the dashboard integrated into the fairing.

From a financial perspective, a project like this makes absolutely no sense at all. It's a reflection of what's important to me and my creativity. I have changed virtually everything, so it's been expensive, to say the least. I'll finish it 'someday' soon...

Stephen MacClean



## The One Post an ICOA Director Never Wants to Make

It is a sad day for ICOA and CBXers. Eric Schreiner called me with the information that he has been diagnosed with prostate cancer. He is in testing now and I will provide the results as they become available. I am asking you for your prayers for a man that is so worthy of all our thoughts and consideration.

He also asked me if we could cooperate and find a member to take over his role as Goodies Director so he can concentrate his efforts on his current medical situation. If you are retired or have spare time and are looking for a way to help the club and Eric call me at 717-697-5559 late evenings eastern time so we can talk...after which if you are still interested you can talk to Eric about the details.

Again, I am asking you for your prayers for a man that is so worthy of all our thoughts and consideration.

Mike Brown Barone, ICOA National Director