The Canoe? Now there is a story behind that name.

Icon 917K: Dave Eaton & John Hartland

The first 2 years……

On the motoring website *PistonHeads* there is a section called "You Know You Want To", which features tempting items from the classifieds or in this instance a set of body clips advertised for sale on eBay! On Thursday 4th August 2011 the item that popped up was a set of Porsche 917 body clips that was confirmed as coming from moulds taken from David Piper's chassis number 917/10, and Pistonheads believed this is the first and only complete 917 bodywork ever to be offered for sale!

Text from the Pistonheads article!

Sadly, it looks like buying a 917 bodyshell and then building a car around it isn't as easy as it sounds (*And it doesn't sound all that easy - Riggers*). But there must be something you could do with it - turn it upside down and make a canoe, perhaps?

The reason that David Piper made moulds from his original 917/10 was to build a replica of the Le Mans winning 917/5Ltr. David had I believe 5 or 6 sets of body clips made from his moulds (which are still living in his back garden), two of which were surplus and found their way to a chap in Norfolk.

This chap had already purchased back in the early 2000's an Australian LMK917 kit, which he had to spend quite some considerable time completing. And had worked with David Piper back in the day and decided to buy these 2 surplus shells. One shell was used to repair his LMK917 after an accident, and the second he needed to sell to finance a Flat 6 engine rebuild, this was the one that turned-up on Pistonheads!

As the advert stated: 'I believe this is the first and only complete 917 bodywork ever to be offered for sale.' Well quite, a lovely and desirable thing, but even the *PistonHeads* article was guarded: 'There must be something you could do with it – turn it upside down and make a canoe?!'

A canoe indeed for a set of 917 body clips-sacrilege! So begins the story of this car, more formally referred to as an Icon 917K. Well not quite the beginning, as the real story of wanting a Porsche 917 began at Brands on Sunday April 12th 1970, when at 13 from I stood on Druids and watched Pedro Rodriguez annihilate the field to win the BOAC 1000kms by 5 laps in the pouring rain. Famously Chris Amon quipped "Why doesn't someone tell Pedro [Rodríguez] it's raining?"

And that victory was achieved even after Pedro was black flagged and given a bollocking for overtaking under a yellow on lap 2 by Nick Syrett, or perhaps that was the catalyst to that famous victory! Regardless that victory and car left such an indelible impression on me, it was really when the story of this car started. So it has been a long time (over 4 decades) coming then.

Having joined Ford at Boreham in 1979, I left in 1982 and ran my own motor trade business from 1982 to 1988 and then went freelancing as an automotive design engineer ever since, often for Ford, but also managing projects such as a set of six bespoke Bentleys for the Sultan of Brunei, several show cars, and contracting around the globe for the big OEM's..

My motoring CV kicks off with Cortina's, Anglia's, eight Capris, before the moving to BMW's. But during my 6 years in the repair business through the 80's I drove virtually everything! And when I sold my share to my partner to go freelancing, I bought 2 Italian classics, a Alfa Romeo Montreal and a Series 2 Espada with knock-offs. Only problem was the Espada came with the engine in bits and the whole car in need of a complete rebuild!

And that is where I meet my partner in crime for in the Icon 917 project. I bought the Montreal from a chap name of John Hartland, and after shaking on the deal I found myself tripping over Lamborghini V12 engines! At which point I said to John, I think I need your help as I have bought an Espada with the engine in bits…to which he said "you idiot"!

But John was brilliant and helped me with all the knowledge to rebuild the V12 and the car. And we became firm friends for the next 40 years. John is an ex Le Mans mechanic, and a supercar specialist in Lamborghini's, Porsches, Ferrari's, and race machinery etc and a brilliant engineer and a perfect match to my CAD and mainstream engineering skills for supplying the technical race car input that I lacked. Examples being the steel spec to use for the chassis, suspension details, oil and fuel system layouts etc. And most importantly checking the G50, and a complete rebuild of the 964 engine to ensure the emissions would meet the IVA requirements. John also built a Cosworth engined 600bhp Ultima spider, in which I have had the pleasure of being a passenger around Spa and The Ring.

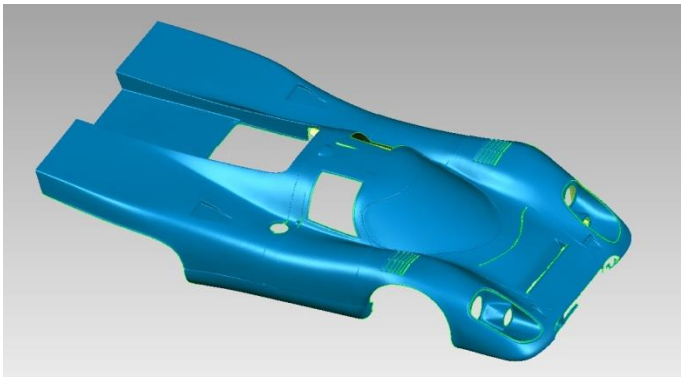
So after going to view 917 body clips and striking the deal to secure them by agreeing to pay some 25% over the eBay asking price (as they just looked spot-on), the first person I called was Mr Hartland. I recall the conversation very clearly, "guess what I have just bought?", to which John replied "ok what have you bought?". A set of 917 body clips, from which I'm going to reverse engineer an accurate evocation of the originals. John instant answer was: 'I want in… and then I want one'.

So we struck up an agreement and agreed to share the tooling costs with the intention from the outset to build just 2 cars the first 001 for myself as track day car but with the added challenge of passing the IVA to be road legal. And 002 to be John's and 100% track focused.

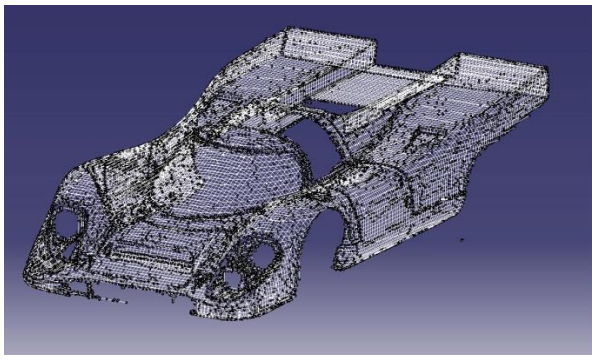
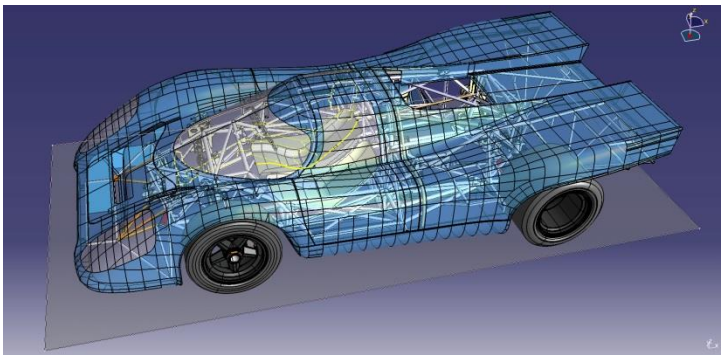
The major issue with building a 917 evocation as opposed to a GT40 is the engine. As the last air cooled Flat (V) 12 engine that sold was at the 2018 Festival of Speed and went for the excess of €1 million without the matching transmission!! If I sold the house, cashed-in all my pensions and moved the wife into a caravan (which she would not be impressed with!) this was still a tad over my budget!

So to maintain the link to the original Porsche 917 concept, we clearly needed air cooled power and a Porsche transmission. So I bought an untidy Porsche 964 with 6 months MOT. Once the MOT ran out I pulled the 3.6L Flat 6, G50 transmission, and cut chassis numbers out to use for the IVA. Then started measuring and modelling the engine and box in CAD so I could get the general package, engine and inverted G50 mountings set-up correctly within the chassis.

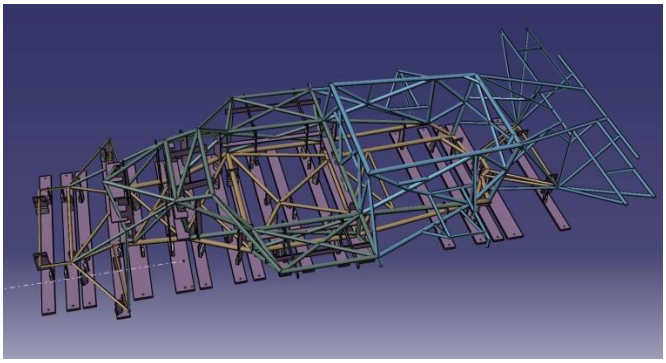
But let's jump back to the body clips and chassis, and the first steps I took to start the reverse engineering process. Having been an automotive design engineer for 40 years I know and understand the design and engineering process used by the OEM's, especially Ford's. So the first step was to build a wood frame to get the body clips mounted correctly and then have the assembled body shell scanned.

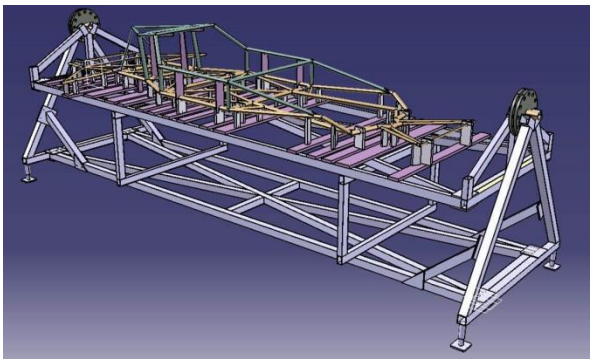



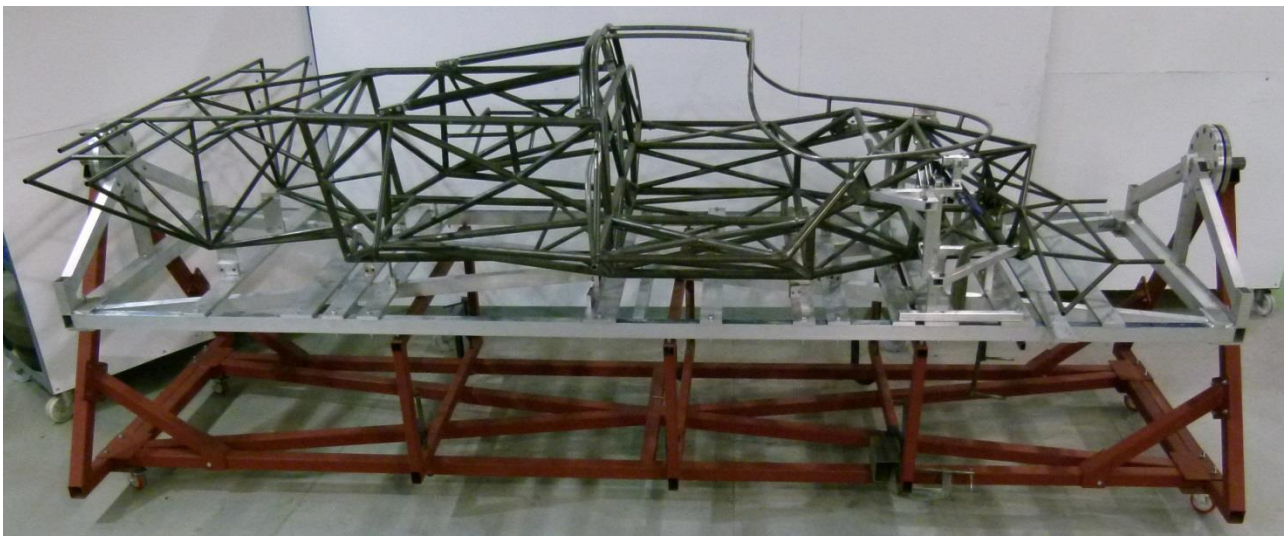
The scan was completed and I then spent the next 3 months surfacing the scan. It's a false idea that once you get a scan it is a usable surface, it is not. The scan was a huge file of triangular patches that is unusable as a surface, so the only way to get usable surfaces is to cut sections and surface it. And that took 3 months! But while I surfaces the scan I started to develop the 200 plus tubular chassis. And having the surface enabled me to ensure that the chassis design was aligned to both the Porsche drawings and that the body would fit the chassis.

As I developed the chassis using T45 spec tube (as recommended by John and used on the Spitfire engine frame) as accurate to the original as possible, albiet with the necessary modifications to fit the 964 engine and G50 transmission in parallel I started to develop the chassis jigs. The jig consisted of a lower steel frame with an aluminium upper rotatable lower framers and approx. 18 cross members that supported approx. 100 vertical chassis tube supports.







The jigs and chassis were built by ARK Engineering at their Basildon facility to my designs from approx. 217 T45 steel 5 axis laser-cut tubes rather than the original aluminium to meet modern safety regulations if we ever go for FIA Continuation approval.. But otherwise chassis is very accurate (within 5 to 10mm) of the original apart from the alterations for the 964 engine and G50 transmission.

To reverse engineer the complex 217 x 5 diameter tube chassis required excellent CAD software and as I use Catia in my day job that was the logical choice. The only issue is the costs of the licenses, which after 5 years has become rather substantial! And at a conservative estimate I had spent some 2000 hours at this stage of the reverse engineering process. But to see the jigs and the first chassis take shape was very positive and made the 2000 hours' worth while.

I had to set-up and excel (too many years at Ford!) to summarise and calculate how much tube was required. Then I ordered 6m lengths from Aerocom in Wolverhampton and they sent then to a local laser-cutting company. I sent the laser cutting company 217 CAD files with the intersected fish mouths, and received back 217 laser cut tubes with the fish mouths, so when all the tubes were dropped into the ARK-built jig it the chassis literally started to build itself. The upper section of the jig can be rotated to improve access for welding some of the complex joints, but the 'prototype' still took Anthony Maycock 12 weeks to weld.

While the chassis jig and chassis were being built, I was designing the suspension and the approx 220 mounting brackets to the chassis, required to accurately replicate the original geometry, even down to the roll centres. But to translate the suspension mounting brackets accurately onto the chassis I had to design 6 jigs, which were located to datum's on the main chassis jig. Anthony manufactured and used these jigs to position and weld the brackets and we ended up with the wheel base within +/-4mm of the 2300mm.

The next 8 years……

Once I had the first chassis completed (001 that is) the first email had to be to Pistonheads, to tell them “I was the idiot that bought the 917 shell” to which The Editor replied the following day with the text below.

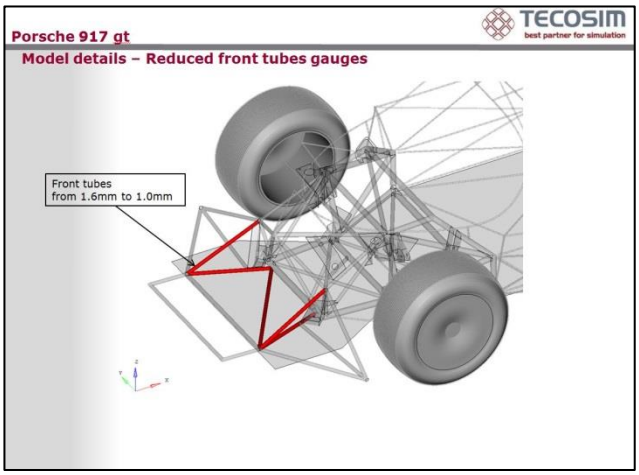
'Hi Mr Editor' began an email arriving in the PH inbox this morning. "You may recall back in early August 2011 a rather negative article on your website about a 917 bodyshell for sale."

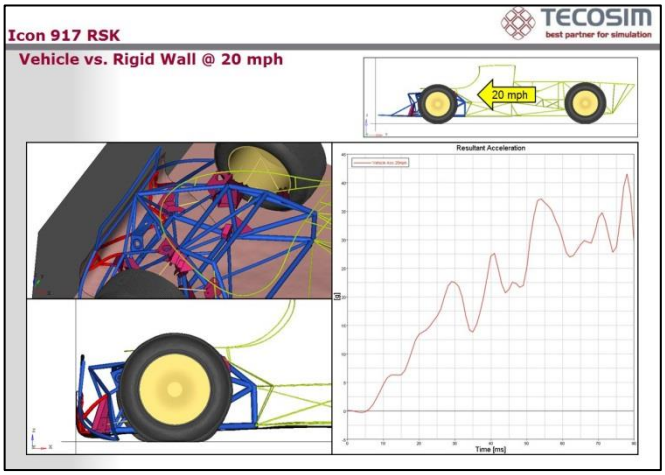
Uh-oh, who have we upset now...

Reading on it turns out not to be an angry email but in fact a fascinating one. You can read that original story here but the basics were that a fibreglass Porsche 917 bodyshell from a mould taken from David Piper's (yes, him) original car was up for sale. And we suggested that the best use for it might be to turn it upside down and use it as a canoe. Ahem.

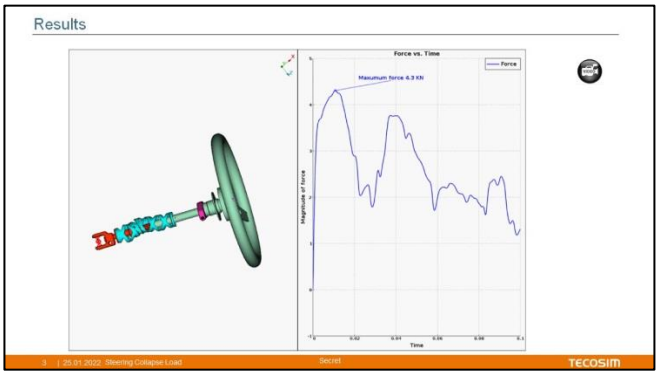
From day 1 I made the decision that the 917 had to be road legal, and I was lucky to meet the design engineer (an ex contract engineer like myself) working on the BACMono at the Autosport show around 2012. He gave me his VOSA team (now changed to the DVSA) contact who supported me for the next 6 years with every question I asked. And one of the first questions was in response to the man I bought the body panels from, he told me that you could not get road legality on any vehicle where the feet are in front of the front axle, which I suspected was to try and deflect me from road legality.

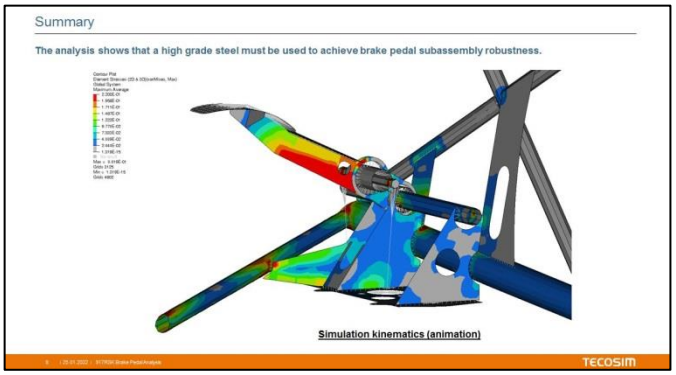
So I contacted the VOSA team and asked this question, and the answer was logical and complete, “yes feet can be in front of the axle, but you need to consider front end impact”. So I had front end CAE run at 20mph in to an immovable wall which resulted in 70G which is unacceptable for neck injury. So the CAE team recommended reducing the wall stock of the tubes forward of the pedal protection triangulation, and rerun the CAE which revised the impact to 40G. I sent the CAE report to my VOSA contact, and the reply again was logical that he assessed the report as acceptable, but the final decision has to be made by the IVA inspector at the test.





I had the same communication on several aspects which I could not classify fully in the in the IVA manual, and every time I had logical direction, VOSA won’t tell you how to do engineer a solution, but they will tell you if you have to resolve the question or not. Other examples were designing a collapsible steering column and running CAE to assess that it would indeed collapse at the correct head impact loads, and making sure the brake pedal would not collapse!





Other major components that needed to be accurately reverse engineered, including a heated (to help with demist), laminated, and E-Marked windscreen for road legality whom Pilkington Classic manufactured our own tooling and gave excellent support to get road legality. Also of note our screen fits an original 917. We also had to package a small heater to keep the IVA happy, the primary requirement was to not to warm the cabin, but to supply warm air to the screen again for demist.

Wheels had to be visually accurate (no split rims) so we designed 1-Piece magnesium rims 8.5” fronts, and 14” rears to take the road legal Michelin TB tyres, the 8.5” front also allows Ackermann to meet the IVA self-centring requirement. We can also manufacture 10.5” fronts and 15” rears for track rubber. Major issue was finding one to measure, this issue was resolved in Michigan when supporting a Ford VP build, I found a Porsche collector who had a 917 wheel as a coffee table stand! I was able to measure and develop a visually correct CAD model with the widths to fit the period Michelin TB road legal tyres. Creasy Castings of Sittingbourne came to our aid to manufacture the wheels, they helped us refine the designs to get manufacturing feas, and cast he rims, and a local machine shop with the biggest lathe I have ever seen machined the rims.

The steering rack (as with everything else!) had to be an accurate to the originals, both visually and mounted in the correct position as the location defines the complete front suspension geometry. We used Titan who supplied CAD models and gave us excellent support, and manufactured the rack to our designs with 2 turns lock to lock as a balance between road and track use.

The dampers are an inverted design as per originals and manufactured by Nitron who gave us excellent support. I supplied the suspension geometry nominal, jounce, and rebound and Nitron initially supplied a dummy set to check the package. Once these were fitted I could then confirm that the package was ok, at which time Nitron manufactured a car set. John contacted Bilstein, and we found we could get an original set of inverted and fully adjustable 917 dampers but costs were rather high. But we sent Bilstein the geometry they confirmed the rear damper was within a couple of mm of the original and front was 15mm short. So in view of this feedback I will revise the front geometry back to the original position, so we can fit originals in 002.

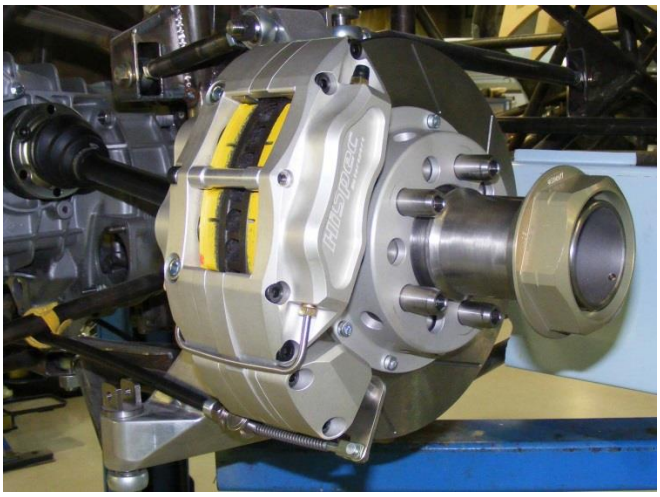
I mention the suspension above as the geometry and mountings had to be developed in parallel with the chassis. The wishbones were manufacture using T45 tube, and I designed accurate replicas of the mounting brackets that located the wishbones back to the uprights. We used Aurora rose joints with machine inserts Tig welded into the T45 tubes for all the suspension joints, and I designed a jig which built a car set of wishbones.

The uprights also had to be visually correct, but with one upgrade which John recommended to use the latest dual race Porsche one piece bearings instead of the original taper rollers for reliability. The later 917 uprights are complex geometry which I was able to replicate in CAD, but needed to be 5–axis machined and costs a fortune!

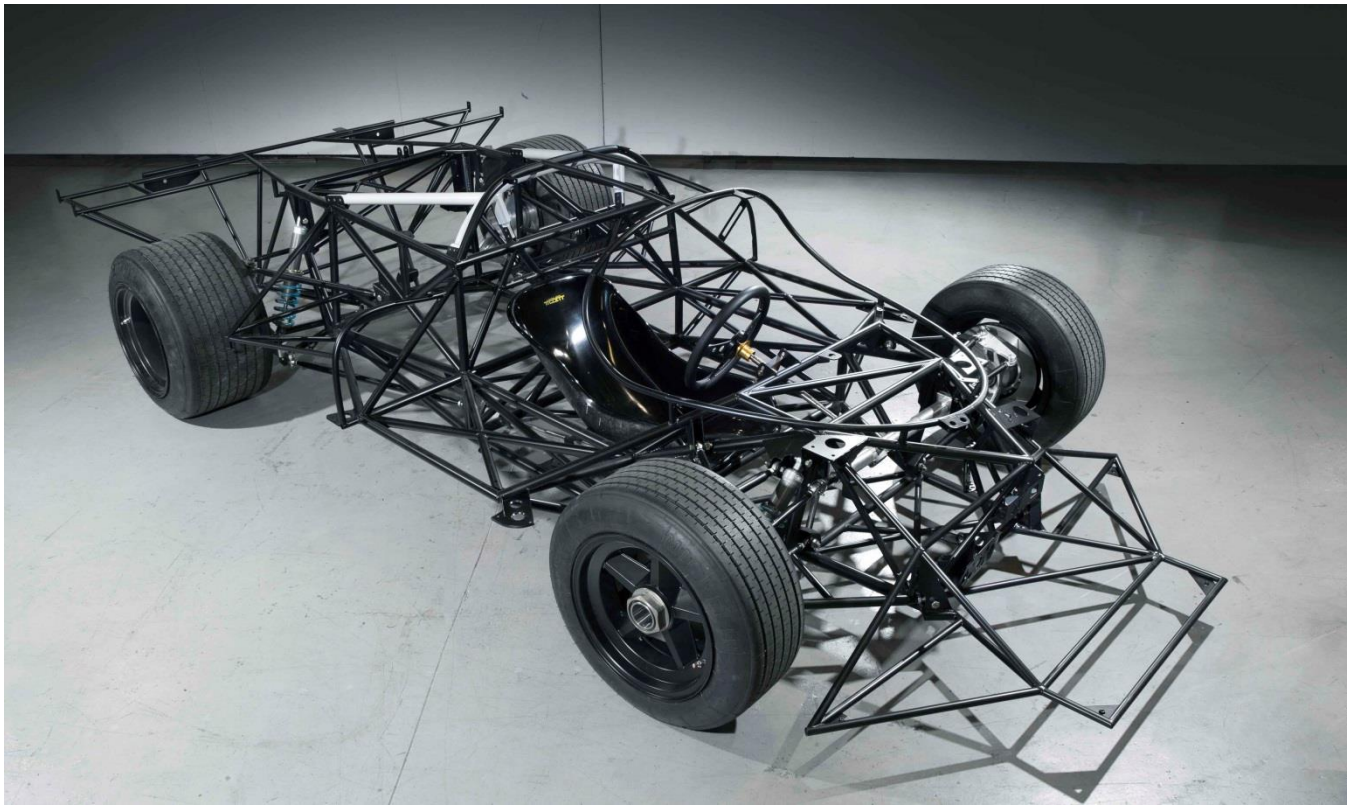
The stub axles were all bespoke designs, and along with the radius arm inserts, mounting brackets, wheel drive pins, and numerous other components including the complete gear change system were all machined locally in Southend by RJ Waller otherwise known as Jim. Again with Jim's machining skills and materials knowledge I could not have completed the car to the standard we have attained.

Another rather important item to source were the drive shafts, and again John came to the rescue in recommending approaching GKN. They gave excellent support and supplied CAD models to my package and power requirements. Screen, Wheels, Uprights, Brakes, Drive shafts, Stub axles, Suspension wishbones including machining all the inserts and brackets, Aurora joints, Rack, Dampers etc total costs in excess of £70k!

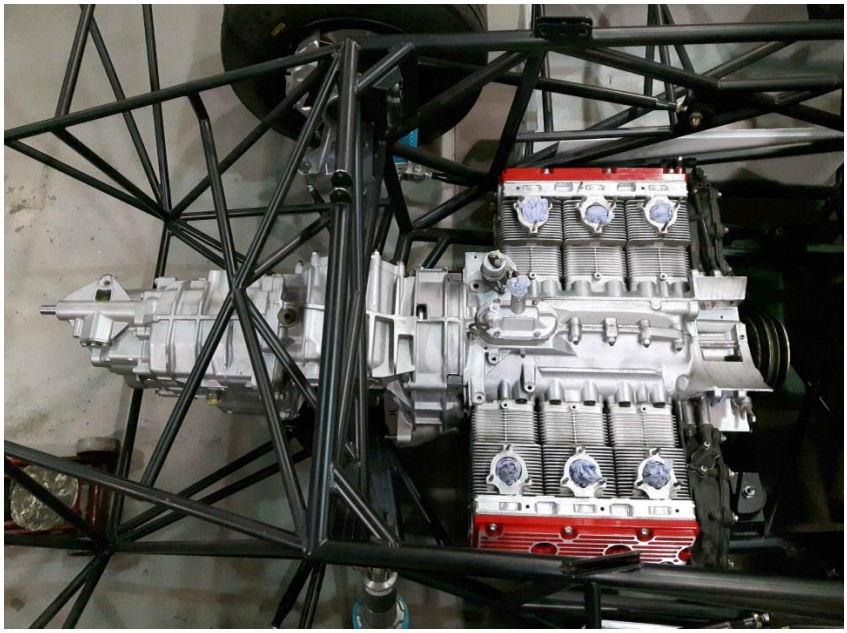
Brakes are discs and calipers are effectively Radical. Front 300mm x 32mm, RX132-6 Pot Radial Calipers and rears 290mm x 30mm, RX114-4 Pot Caliper + H/Brake Spot Caliper. These came from Hi Spec in Dartford and there support in enabling me to package the brakes including the handbrake spot caliper and bespoke adaptors for lug to radial caliper mounts within the 15" rims was invaluable. Then there was the hand brake itself, and found a fly-off unit, which I managed to squeeze between the seats and mount to the driver's seat bracket.

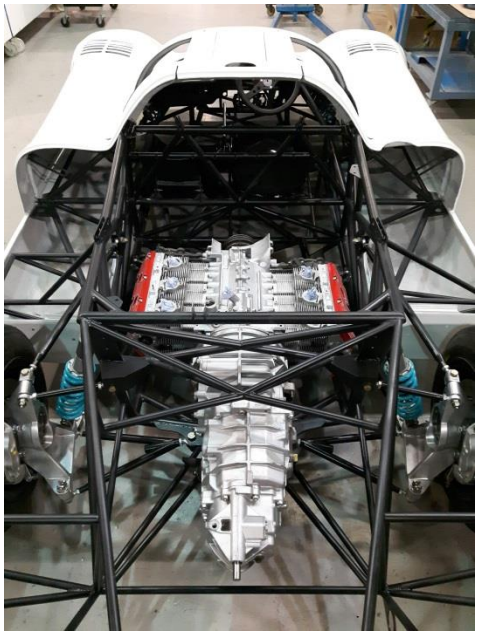


So we now had a rolling chassis! Complete with windscreen surround (which required another jig!) and the additional roll bar which was required by the FIA for safety reasons for the 1971 season, because the original integrated roll bar had to slotted through by some 60% for the rear body hinges!

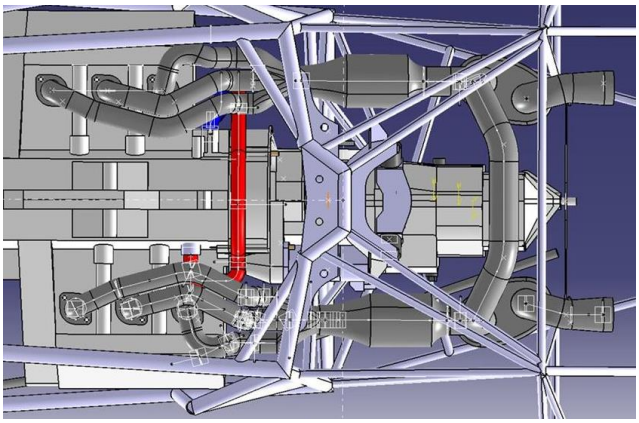


One interesting aspect to using the engine and transmission from a Porsche, is that we needed the transmission behind the engine in the 917, whereas the transmission is in front of the engine in a 964. If the engine and box were just rotated 180degs in PV, then you have 5 reverse gears and one forward! To alleviate this issues you have to invert the G50. The box is secured to the engine by 4 studs, so inverting the box looked straight forward, until that is we realised that Porsche had not set the studs at 90 degs, they were at 89.5 and 90.5! John had a lightbulb moment and came-up with the basic solution which worked, then I designed bespoke machine adaptors to supply a robust joint.

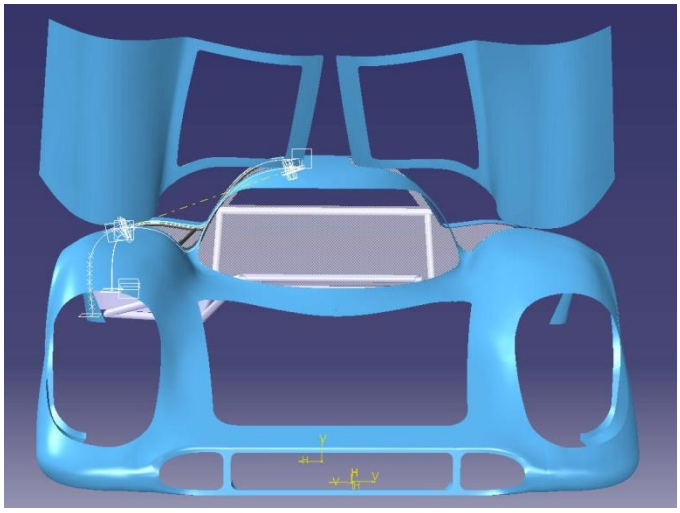




Next steps for the engine were to design the exhaust systems, and BTB were fantastic in working with us to make sure my designs were feasible to manufacture. Twin CATS, and twin vertical silencers so the rear view would look like a 917, no unsightly silencers slung across the rear. We choose Jenvey throttle bodies, latest Bosch injectors, and a DTA ECU to ensure that we would meet the IVA test emission requirements.



Next major step was to get the front body clip fitted and glassed to the chassis, in parallel to fitting the rear body, doors and sills. The door opening had to be correct, as one annoying aspect of the 2 other replicas available are the way the doors open to approx 70 / 80 degs and then propped open with a stay, which is not correct and makes cockpit access more difficult. I wanted the doors to open as per the originals, which means opening to approx 110/ 115 degs to rest on the front wings. Using CAD I was able to define the hinge line to achieve this, and then design the exact same hinge designs. When working for the OEM's, you learn that that the devil is in the detail!



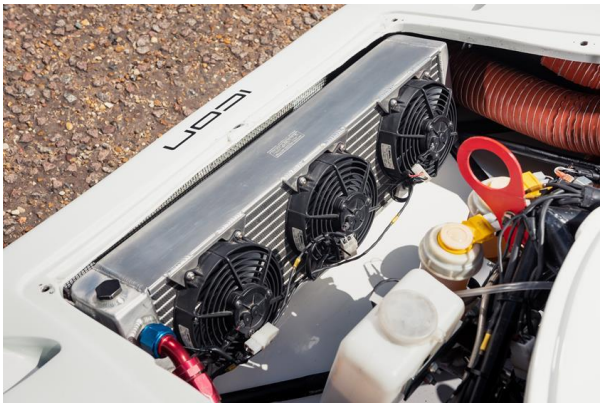
Once the body panels were fitted and glassed onto the chassis with all the necessary reinforcement tubes fitted, the body and chassis went off for paint. Grand Prix white was chosen as the prototype colour for Porsche race cars during the 60's and into 70's, and 001 is our prototype.

At this stage, we now rebuilt all the running gear refitted the engine and transmission as Anthony was on his way to McLaren, and I decided time to take back to my extended double garage to complete the build. This included numerous items in fact I have an excel spread sheet with over 200 items, some of which are now considered as MCA (Mid Cycle Actions) updates!

Next major items were seats, the drivers seat was manufactured by Steve Tillet, using our 40 deg back angle buck, and the passenger was developed from the drivers but reduced width. Next on the list was the dash panel, which I designed in CAD with a set of wood templates, which slotted together to build the frame and then panelled to produce the basic shape and finished with filler and then gel coat, before we took a splash for the dash panel. This process was repeated for passenger seat, the front inner wings, and NACA ducts.

Lighting and Electrics! I was recommended to contact David at DC Electronics in Maldon to design and manufacture the harnesses. So once I had all the lights fitted, including the mandatory rear fog and side repeaters, I shipped the car to Maldon for David to discuss, measure-up and design the harnesses. We decided on a modular design with 6 separate harnesses, with all major junctions, relays, fuses, engine management etc located on purpose designed aluminium frames in an aluminium box packaged in the RHS sill.

Fuel and oil systems! John was absolutely key for the layout of both the fuel and oil systems, as he has considerable experience building his Group A Cosworth powered Ultima and from working on multiple supercars over the last 40 years, and three years working at the Le Mans 24 Hours. John advised on the in detail layout of the fuel and oil systems, which I then designed the complete installation in CAD. But we needed a company to manufacture the oil and fuel tanks, and more importantly an exact replica of the oil cooler, and I cannot remember how, but ended-up calling ProAlloy and was lucky enough to speak directly with the MD Alex. Alex gave me incredible support and I can't recall how many ppts and conversations we had regards the tanks and cooler, and the quality of the welding, stunning. Needless to say with both John and Alex's support and my CAD design and packaging skills all systems worked out of the box, and so far after 2000 or so miles, no issues.




Now all the major systems are completed or very close to completion. Below is a list of some of the final assembly jobs required to get our recreation completed, running and road legal:

1. Design, manufacture, and installation of front and rear inner wheel arches
2. Design, manufacture and installation of the rear stowage bins.
3. Sourcing and fittings of the door and rear body locks and latches.
4. Design, manufacture, and installation of the gear linkage.
5. Fitting of the headlamps, indicators, fog and reversing lights.
6. Packaging and installation of a heater.
7. Packaging and installation of two axle flow fan units to supply the defrost and cool air to the cockpit.
8. Installation of the oil and fuel system pipeworks, which John completed to such a high standard.
9. Installation of the brake pipeworks, again which John completed to a similar high standard

And then “start your engine”! This was not easy process, as we were only given a start and idle map, so completely flat top, no additional fueling to allow the throttle to be opened. Once we realised the issue, we still had to establish that the sparks were be delivered in the correct firing order, which required some ingenious solutions!!

Once we had confirmed the spark delivery was correct, I contacted a Steve Greenald who is a legendary ECU map magician! So on a wet Saturday afternoon sometime in November 2018 he worked his magic and we had a running engine! And then on a dry Sunday morning I took the first under power drive out from the garage, which believe it or not we didn’t take any photos, so forgive the grainny images snapped from a video my son-in-law took. And the sharped eyed of you may have noticed that the car is now in Gulf colours, now there is another story.

Even before the engine was running and the car was drivable our Icon 917K had already become rather famous. John is a member at Goodwood and at the beginning of April 2018 received a call from a Jack Tetley of the ROFGO Collection. ROFGO, Goodwood, and Porsche had a bit of a problem, they were building a Porsche 70th Anniversary central feature for the 2018 Festival of Speed with 6 famous Porsches adorning a star 100 feet up in the air. They had sourced 5 cars from the factory collection, but no one would loan them an original 917! Jack confirmed that they had researched the recreations, and we had the most accurate…..and would we loan it to to Goodwood to go 100 feet up in the air!

When The Duke of Richmond and the Porsche factory come calling, there is only one option Yes we will delighted to loan our recreation. They were clear that they would not pay us, but would cover the wrapping, transport, and any other associated costs. Another person who owned an LMK recreation wanted paying and he refused to help! Well that was good for us, and regardless our Icon is far more accurate than his LMK, as was recognised by Goodwood, and the Porsche factory. So I had 6 weeks flat out to prepare the car for this event and we delivered on time! Goodwood were fantastic, gave us 8 tickets for each day of the festival , drivers club tickets and tickets to the Goodwood ball!

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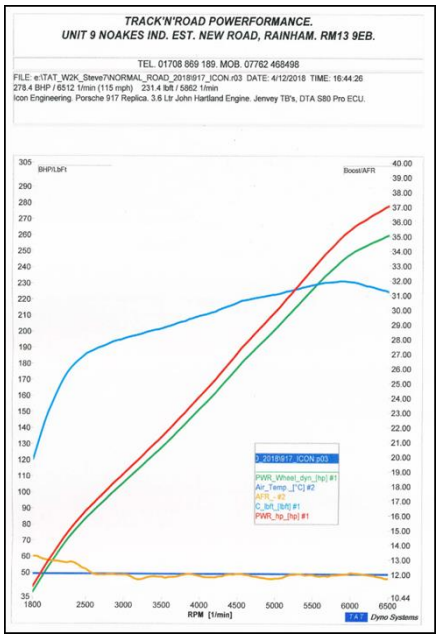
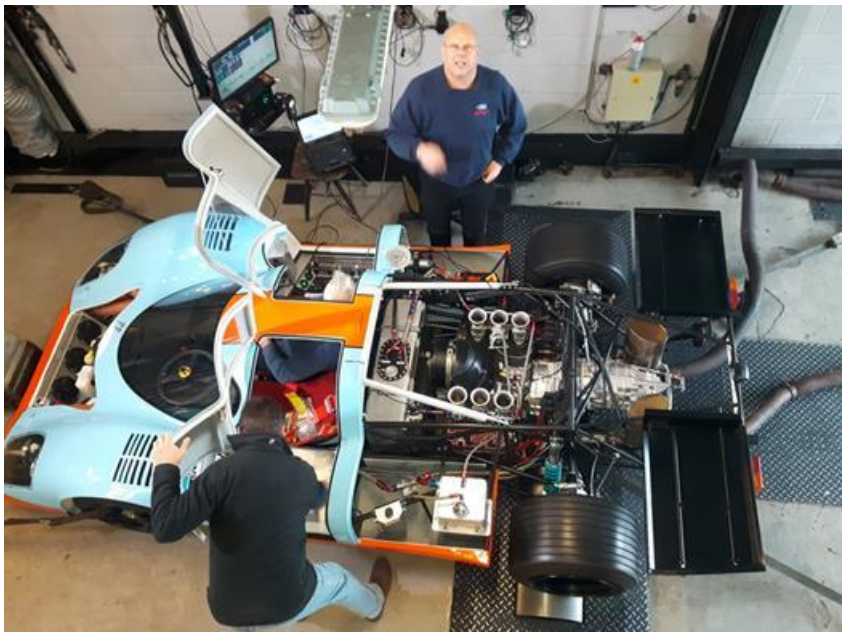
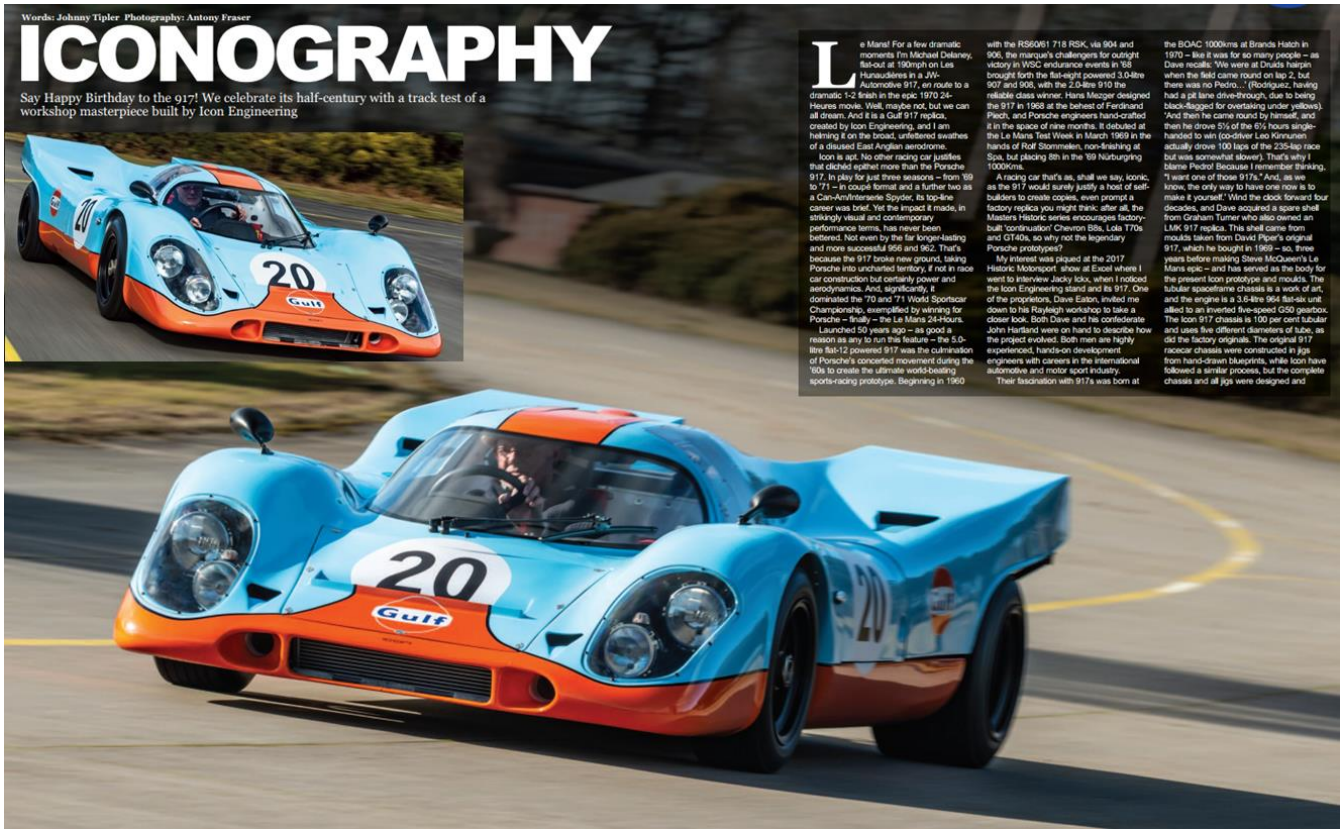
Apart from the foray out of the garage the first real test for the car was on the Track and Road rolling road in Rainham December 2018. This went very well, and we recorded 270bhp at the wheels, which for a standard 964 engine rebuild was some 20bhp over the standard engine. Due in part to John's meticulous rebuild but also having Jenvey throttle bodies, the latest Bosch injectors, and ECU map tuned to give max performance. We also checked emissions and this looked positive to pass the IVA targets. Combined with a wet weight of 900Kg, the performance is adequote for the road. But once past the IVA, perhaps a couple of K24 993 GT3 turbos…….





Our next major test for the prototype was at Bentwood airfield near Woodbridge for an article in 911 and Porsche World with journalist Johnny Tipler still in the Goodwood Gulf wrap. In general 001 behaved very well, and Johnny (squeezed into the cockpit with his trademark hat) managed many laps around the wide open airfield run and taxi ways. We had an oil weak from the RHS lower cam cover with oil (a common 964 issue) and late in the day a broken lever mount, which restricted the gear selection to 3rd and 4th. But the lever mount was easily repaired the following week, and Johnny's article was very positive.



The next major event on the calendar was an invite to drive 001 at the 2019 London Classic Car show on the Grand Avenue. My concern for this event was being able to complete a 180deg turn without having to reverse in the 40ft turning circles. We were requested to have 001 available on the Thursday, to complete practice runs and no problem making the 180 deg turns. We received a great reception on each of the 2 runs over the 3 day event, and no issues this time, but only running in 1st!

The next major event was an Octane article arranged by a well connected motorsport promoter Michael Hodges who arranged the editor of Octane James Elliott to drive 001 at Bruntingthorpe. John and I both agreed we should go the day before the Octane article and give the 001 a full workout, which went very well with the car behaving without issue. James arrived on the following day with his photographer and once in the car, we had trouble extracting him! James interviewed John and I at length and wrote a glowing 6 page article which was published in the May 2019 edition. You will notice that the livery has changed to reflect the 50 year anniversary of that famous photo of 25 cars lined-up at Porsche for inspection by the FIA. This was requested by James as Octane ran a 12 page article on the 917 and the cover was the original 001 with the green nose.

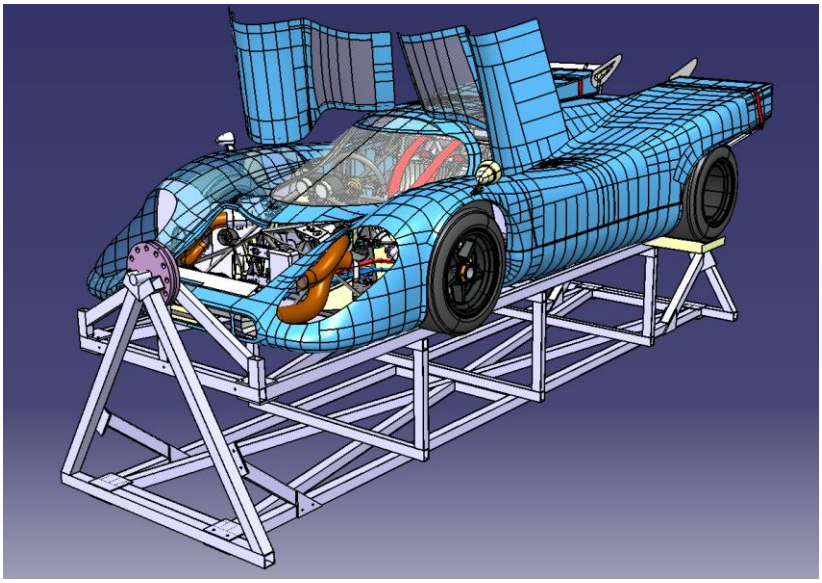
Next step was the most major of the project for which we had been preparing since I started the reverse engineering process, to pass the IVA!, and achieve road legality! I decided to stop second guessing and took the plunge and booked the test for mid June 2019. The IVA inspector was thorough but fair and must have already accessed and read the multiple ppts I have sent to the VOSA/DVSA, as he did not request to see any of these. One of my major concerns was passing the emissions, but once the CATS had lit up, we passed first time. But we failed on 13 items, but nothing insurmountable or to serious as to negate passing the retest. Major items were mirror location to see over the high tail, exhaust noise, handbrake efficiency, and brake balance. To resolve the mirror issue I designed a extended tripod electric mirror using available standard OEM motor system, and had this manufactured as rapids. For noise I designed an additional 2 into 1 exhaust box fitted the Flat 12 engine cover to reduce the noise from the cooling fan. Regards the brake the IVA test at 5 different pedal pressures to check that fronts are always locking up before the rears, and failed on 4 of the 5 checks. This for me was the most important aspect of the IVA test, and to resolve was relatively easy. We have dual circuit front to rear so just a matter of adjusting the master cylinder balance. But as a precaution I took the car to a local MOT station and did a brake test, which we passed with the handbrake meeting 14%. But this did not meet the IVA requirement of 16%.

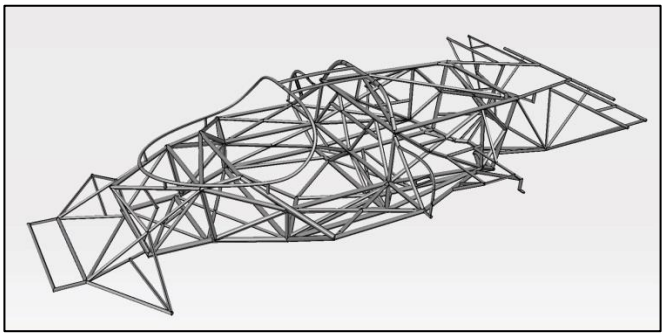
So I booked the rest for July 23rd, and we passed! The tester was very fair regards the handbrake as he did not retest on the roller, as he said the spot caliper systems does not perform well on rollers, and the car would not go on the ramp as the nose would have been damaged. To celebrate I bought my transport driver Alex (who had been moving the project since it was a chassis) and I Burger King and milkshakes on the way home!

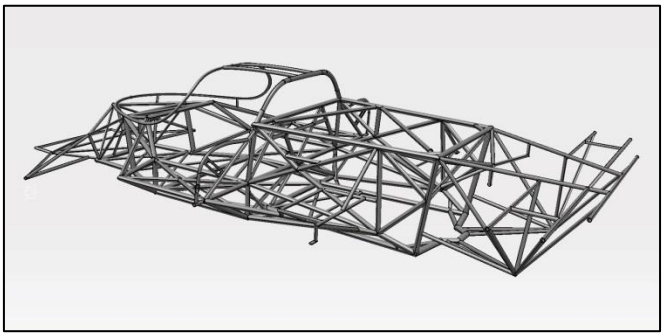
So I had the IVA pass certificate called the IAC (individual Approval Certificate) but next step was to persuade the DVLA that the car was a new build. This involved more form filling (now there's a surprise!) and copying 80 invoices to prove that every component (excepting the engine and transmission which had been totally rebuilt) was either designed and manufacture as new, or purchased as new. And a week or so after sending the paperwork off, the log book arrived! We were officially and OEM with the manufacturer name of ICON, and the model 917K with a 1st September 2019 registration EU69 FEG! Which is now changed to JMA 917K.

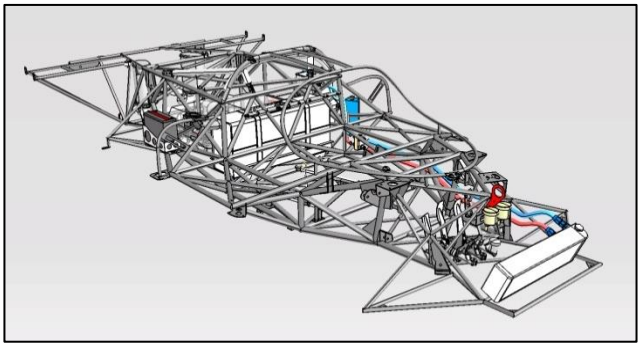
Now we have around 2000 miles on the clock, of which around 1600 are road and 400 are track on Stowe, Goodwood, and Brands Indy and GP circuits, and without any major problems so far! We have had more articles and photo shoots for GT Porsche and Petrolicous, and attended Boxengasses, a purely air cooled annual Porsche event for the last 3 years. Been invited to attend various Porsche club events, and accepted by the club, and will be having an article in this months Porsche Post Modified section. So the original vision of reverse engineering an accurate recreation with original 917 body panels and Porsche engine and transmission has been accepted by the Porsche Club.

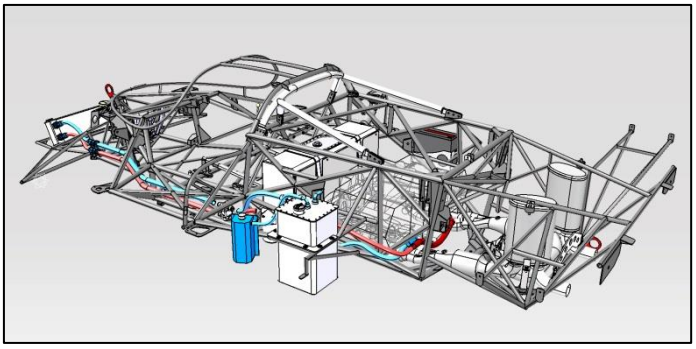
Before I wrap up this article on as we like to call it “10 years of lunacy”, I wanted to add a selection of CAD images. Not only does our Icon 917K 001 reside in my double garage, but 001 also resides in a digital garage in CAD, as shown in the images below. Almost every component is designed in CAD first, and then fitted to the car, this is the same process as used by the OEM’s, and guarantees a repeatable build process for low volume production. We have moulds and / or CAD models for every component to build 003 onwards as 002 is John’s car. But to build these recreations is a very time consuming job, so costs are not competitive with GT40’s.

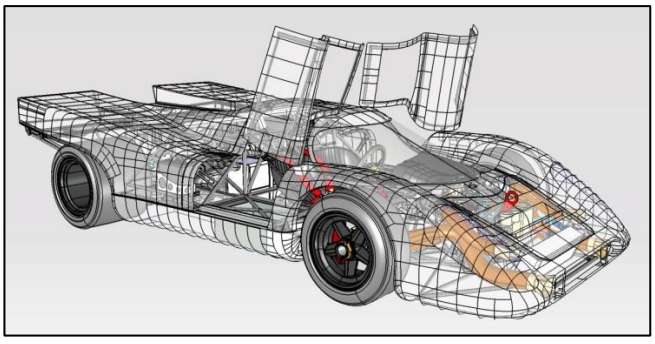


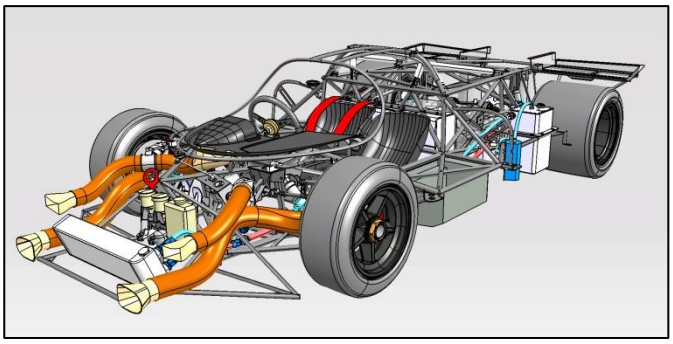












What next for our “10 years of lunacy”! Well we can supply anything from a door, oil cooler cover, to a complete bodyshell to hang on the wall, or a rolling chassis to a turn-key car. But building a 917 recreation is very time consuming, so we can’t compete with GT40 costs. And obviously can’t at the moment supply the original Flat 12 engine, but we have a 2 year plan to alleviate that problem. But we need more power, as noted by John, Mike Wilds, and Chris my son. Christopher’s assessment after running 30 to 40 laps on the Indy circuit was this car is so planted, but we need more power! The originals had 600bhp for the same weight of 900Kg, so I recently bought a pair of K24 993 GT3 Turbos, and now need to package and design the complete system in CAD, to upgrade 001 this winter. In parallel we are investigating supercharging, and we will be developing the CAD models to reverse engineer the Flat 12! And finally a couple more photos from a night time drive in the city for a Speedhunters article.