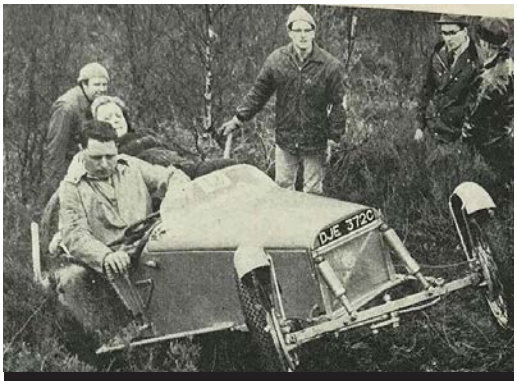
The Story behind Impunity 1 & 2

by John Fack with help from Julian Fack who designed & built the 2 cars

HISTORICAL BACKGROUND

For approximately 12 years from the mid-1950s, Cannons (and some of the specials built along similar lines) were the cars to beat in Sporting Trials. Sporting they may have been, but trials were very competitive at the time with fields of 40+ cars going out to play at 20 or more events around the country every year, so it was inevitable that one or two people would start to think they could come up with designs still complying with the National Trial Formula that would spoil the Cannon's party. Some innovations – Percy Barden's radical IRS PAB, for example – failed to convince, whereas others like the lovely Nymph that Frank Pryor built for Don Rawlings with its "flat" steering wheel and pivoting front transverse leaf spring system worked pretty well and achieved good results, despite the cable-driven steering needing weekly adjustments, according to Robin Jager who owned the car later. The most significant innovations were to be found, however, in Frank Pryor's Iris in 1967: here for the first time a fully articulating low roll stiffness front axle was incorporated, together with upright motorcycle spring damper units mounted in the middle, with a steering rack mounted on the cockpit floor. A fabricated tubular axle with Imp stubs – quite possibly another first – located by a Panhard rod and 2 radius rods, with steering activated by a centrally mounted bell-crank, completed the picture. John Benson used a very similar front axle system on the JABS that competes in the Post Historic class today, and the very successful Crossle 80T series from Northern Ireland featured a similar steering system many years later. The Iris was, in my view, a very significant development and should be considered the father of the modern trials car. It led to the end of the Cannon as the dominant force in Sporting Trials, the heavy front end, the poor lock and most significantly the front roll stiffness contributing to its demise.



Frank Pryor in the Iris in 1967.

For the 1967 season, Ivor Portlock switched back from an Alexis to a new Cannon. Ivor's dapper demeanour concealed a steely desire to win, and win he certainly did on the 1960s. Not quite at the same win rate as Rex Chappell or Lol Hurt mind you, but very deft use of his right foot meant that he could out-trickle the best to rack up a load of victories. I suspect it did not take long to dawn on him that some of the newer machinery gave drivers an advantage that would elude him in the asthmatic old Cannon, so he tasked Bill Warr, a farmer and talented engineer who was building himself a modern Renault engine car, to convert the Cannon in to something more competitive. Bill removed the Y type front axle and fabricated a new tubular axle with Imp stubs, rack & pinion steering, rose jointed mounted A-frame and lower radius rods, 2 centrally mounted motorcycle spring damper units and motorcycle wheels and brakes – in other words, exactly the sort of front end set-up you will see on any post-historic today; it would remove around one hundredweight (50kgs) from the front end . He also removed the A8 drums and cables, grafted some B Series 9" brakes on the back and attached the master cylinders to the original Cannon fiddle system. But he went further and – I believe for the first time in a trials car– disconnected the Ford gearbox from the engine moved it back a foot or so and turned it on its side. This in turn meant a much shorter A-frame; at the time there was much debate about the benefits or not to traction afforded by short A-frames. Whether it actually made a difference or not is unproven, but Impunity 1&2 and all the Facksimiles followed suit. What we do know is that it moved the weight back in the chassis, albeit only a small amount, which can only be a good thing. Later Jack Pearce (Kincraft) and Ken Harrison (Ibex) would do the same thing but they took the concept a stage further by mounting the gearbox on the A-frame. Finally the venerable E93A motor was bored and stroked to a capacity of over 1350cc in a last ditch attempt to make it competitive with the A Series and Renault engines that were starting to appear at this stage; it had terrific pulling power low down but had no appetite for revs whatsoever.

This was the car that Julian Fack bought in January 1972, although he did not take delivery until September that year. Ivor, ever ambitious, moved on to a BMC powered Dryad (one of a group of 3 cars featuring all the recent mod cons, the other 2 being Bill Warr's Bilbo and Bill Evans' Beva) after its owner Bob Pardoe was killed in a car crash. Julian, who had spent the previous couple of seasons following Jerome & myself around as a mechanic to our moderately successful Cannon and our desperately unsuccessful PAB, finally had his first trials car. He cut his trials teeth on the much-modified Cannon from September till the following April. During the Summer & Autumn of 1973 it magically morphed in to Impunity 1…and a new era in trials was set to begin.

Julian & Meg inn the ex-Ivor Portlock Cannon, High Edge Raceway, 1973. Note period flat hat, Belstaff trials jacket, tie (Ivor always wore a tie when trialling) & 1970s hair!

John & Jerome in Impunity 1 (early version!) with A8 axle & artillery wheels, dural front axle & 1970s hair. High Edge Raceway, probably 1975

Impunity 1

"Wasted your time, lad. Bin done. Doesn't work!" Not exactly what Julian wanted to hear as he rolled up to scrutineering in Impunity 1 at its first event, I would suspect. Lol Hurt – multiple Championship winner, respected engineer and car builder, reluctant wordsmith – was one of the Fack boys trials heroes back then; to his credit he ate humble pie at lunch and was all over car – "Good job, lad" – for he had seen the potential of the car on the hills. Jerome & I later went to see the car perform at the famous High Peak trial, and we came to the same conclusion: the car was a winner.

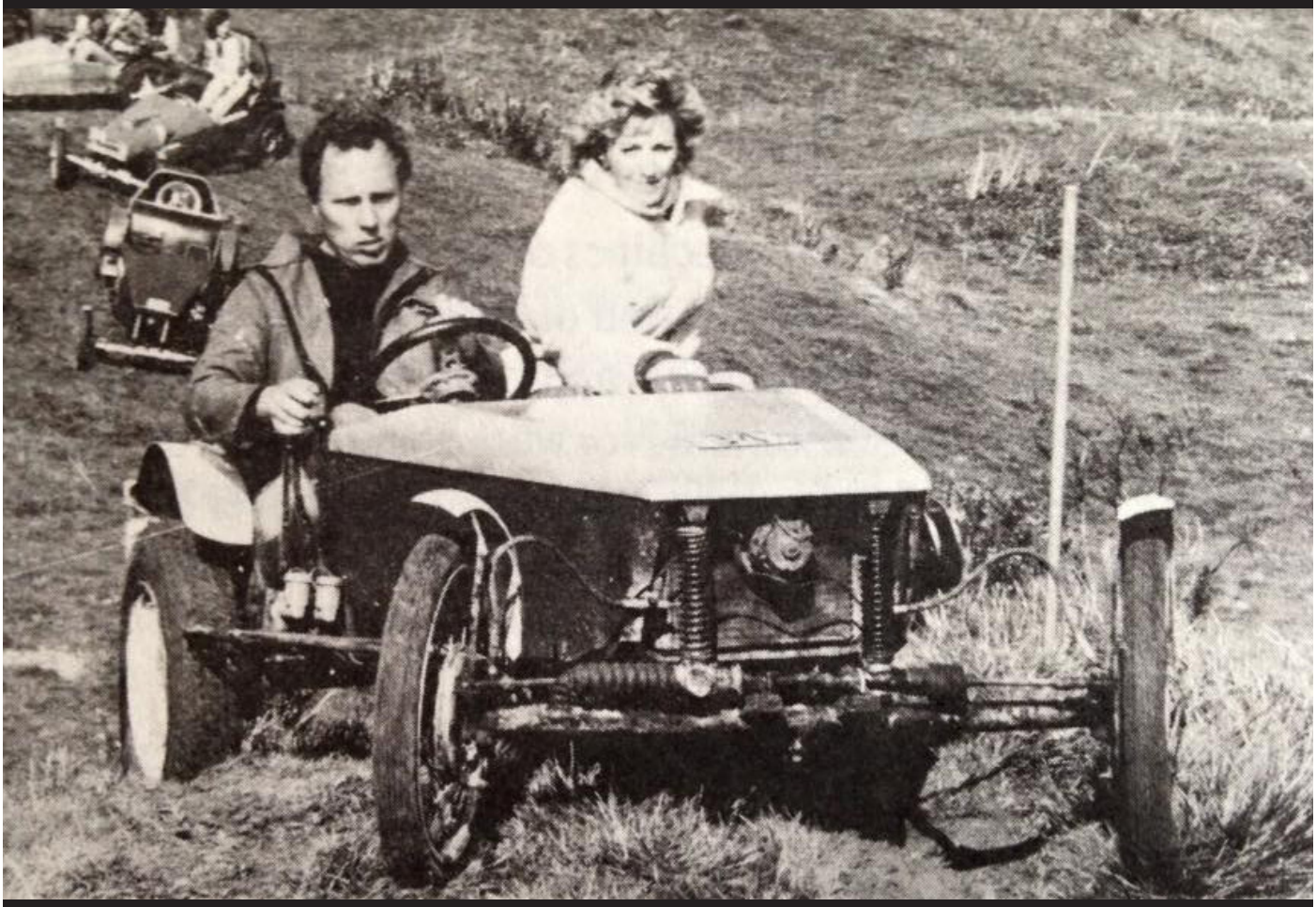
So - what exactly was Impunity 1 at this stage? In fact, in essence it was much the same as the car he bought from Ivor but with 3 important changes – a 1000cc Imp engine built by British Hydroplane champion Andy Chesman, the same 2.5" dural front axle that Impunity 2 has, and a very low back cross-tube and boot. The engine was only running a standard cam at the time, but it seemed to us to have a terrific appetite for climbing hills compared to anything else we had driven. The Imp engine weighed just 100lbs bare, so the overall weight distribution was excellent at 33% front / 67% back empty; the very low back was not only much more comfortable but it also meant you could lean a long way back when required further aiding traction. The fiddles worked very well (they were the 9 inch B series drums grafted on to the A8 axle at this stage, and later the inch Capri brakes on the Anglia axle), the lock was excellent – in fact the ingredients for success were there. Julian did increasingly well in the car over the winter and spring and won his first trial – the LCC Jacobean at the Engine Hole Ware – in April 1974, at which point he sold the car to Jerome and I for a princely sum of £500(around £5000 today) and got on with building Impunity 2. I had asked to drive the car after the trial, just to see what to expect when trials resumed in the autumn, but only got about 20m before the radiator fell out!

I then campaigned the car for the next 28 years with some success, most notably winning first time out in it at the Stone Trough in 1974, coming second in the Gold Star in 1975 when I had only had the car for one season, winning the BTRDA Gold Star in 1984 and the MSA Championship in 2001, as well as a number of trials in between. Over the years we made a number of modifications, the most important of which was stretching the Imp out to 1200cc and fitting a Sport cam – effectively this transformed the performance at both ends of the scale and kept the car competitive for an extraordinary length of time. Sadly the very low seat back we we liked so much got banned after a photo was published of both 6ft 5" twins leaning back, long hair blowing about a foot past the end of the boot, with the front wheels just off the ground. The ban was immediate on the grounds of safety, but we always felt the low back was safer than the new high seat back that was implemented in to the rule book immediately! The venerable A8 axle was changed at the same time and a Ford Anglia axle fitted, which meant the lovely Frank Pryor "artillery" wheels had to go to be replaced by some very dull wheels off a Hillman Minx or some such; these were in turn replaced much later with spoked Facksimile wheels. At the end of each season we had to fettle the Ford diff to prevent it seizing – at least until we fitted Julian's "unbreakable" diff which lasted for over 24 seasons without ever being checked!

Of course, over that length of time a competition car goes through a number of changes and modifications. We had to change the corroded Cannon bottom chassis rails at least once, maybe twice, I cannot quite remember. A new front axle was fitted with a front mounted rack, a better lock, higher gearing and perfect Ackermann. But perhaps the most amazing thing was that the Imp engine – stretched to 1200cc and capable of occasional bursts of nearly 9000rpm – never required any major attention over that entire period. The only thing that we ever did was to send it back to Steve Courts every 3 years or so in the 1990s to have valves ground in and re-shimmed. For an engine that was considered unreliable in the Imp, that is a pretty remarkable testament to how well it was put together by Chessman in the first place. Julian had drummed in to us when we bought the car never to let it boil under any circumstances, and we followed that mantra to the end. In 1983 a significant upgrade when made when the old E93A gearbox came out and was replaced by one of Ken Harrison's 3 speed Ford boxes. This modification once again made the car competitive, even if the three gears were a bit too close ratio. The meant we had to change the crown wheel regularly. For the dry part of the season we inserted a 4.7:1 crown wheel, giving 21, 19 & 17:1. In the wet part the 4.44:1 went back in giving 19, 17 & 15:1.

After winning the MSA Championship in 2001, I decide to sell Impunity 1 - I suppose I just fancied a change. It was bought by an ex-hill climber who was very keen but very sadly died of Sepsis after a couple of seasons; then a tall Irishman had it for a year or two before swapping it for a trials bike. Tragically, it was then broken up and the parts sold off. It would have made someone a lovely post-historic car.

John & Jerome in Impunity 1 (approx 1984) with Facksimile wheels, exposed carbs and rack still behind the front axle



John & unknown passenger in Impunity 1 (late 1980s or early 90s) with rack on front of axle & correct Ackermann. Later we enclosed the carbs using the mold off the baby Kincraft to make a epoxy cover.

Impunity 2

Conceptually, Impunity 2 was not a huge advance over Impunity 1, but there were some significant differences. During the summer of '74, Julian built the new car from scratch which meant that he was not constrained by having to insert an engine in to someone else chassis, which in turn allowed him to go for the very low bonnet line he wanted; the chassis was also properly braced, unlike the Cannon. He also wanted to keep the twin SUs inside the bonnet, which meant the engine had to be offset to the right of the centre line. This in turn meant there was no room for the steering column, which is why it ended up being left-hand drive. There were other advantages to this layout: the fiddle levers could be kept on the right, so inside the cockpit and free from any danger of being trapped by a tree. More significantly gear-changing mid-section was easier since there was no need to let go of the steering wheel. (Mark Howse, who has made a beautiful job of restoring the car to its original specification, opted to site the fiddles to the left, because that is what he was used to). Finally, the Hewland TC box that was specially made for Jack Pearce's Kincraft was inserted where the old E93A had been in Impunity 1. An interesting little snippet about that box is that if you ask Hewland today – for spares or ratios, for example - they deny ever having made it! It had helical rather than straight-cut gears, and allegedly the only other Hewland to feature those was a Le Mans gearbox in a Gulf Mirage…The TC box cost Julian £500 back then, in other words every penny that he got from us for Impunity 1.

Julian used the car from late 1974 to the end of 1981, after which he started to compete in the new X-Facktor. Whereas the mid-70s were dominated by Jack Pearce in the Kincraft, Impunity 2 was firmly in charge from 1977 to 1979 winning three consecutive MSA Championships. Perhaps even more impressive was that Julian won 9 events in the 1977 season; in 1978 he had the MSA wrapped up before the Summer break going on to win an unprecedented 11 trials that season. Between the end of 1974 and 1981, it had racked up a very respectable 33 wins, which is a good strike rate by any standards.

Impunity 2 went through very few major modifications over its lifespan, but the Imp engine did get upgraded from 1000cc first to 1040cc, then to 1200cc. Like Impunity 1 it ran a standard cam, although a Sport cam was successfully fitted to the same engine in X-Facktor later. The car was very reliable over its life span, only suffering the occasional radius rod failure due to the bends in the rods required for the curious mounting system on the dural axle.

The 1981 season was not a successful one for Julian or Impunity 2, but it was probably because his thoughts had turned to building the X-Facktor by that stage. At the end of the season Impunity 2 was taken apart.

Julian & Meg in Impunity 2, late-1970s. Note the raised tube behind the seat to bring it back inside the regulations. Like Impunity 1, the car featured the fabulous low seat until it was banned. Note also the very low bonnet line which meant the driver could see the bottom of both front wheels - important in the days of tight trials.

Impunity 2 at a trial in Cumbria, 1977. Clearly visible is the low back which was subsequently banned. Note also the sticker proclaiming the engine to be 1000cc & 55bhp! It was upgraded to a 1200cc Imp the following year, after which it was extraordinarily successful for a couple of years.

Julian used many of the parts from Impunity 2 to make the X-Facktor. The remains of the disassembled car lay in his garage for well over 30 years before he came to an agreement with Mark Howse to rebuild the car and to use it in the Post Historic class, where it continues to perform amongst the winners at every meeting; it has also appeared with some success in BTRDA events in recent years. It's certainly wonderful to see it out competing again after being dormant for such a long time, and in such fettle too. Truly, a little gem.

Driver & Trials Car Builder concentrating on the task in hand. What looks like a bad hair day is in fact Meg at work behind Jules! Period cap too.

Back in the day some trials were tight! It's a shame the photo de-capitates all the spectators...a very dry MAC trial in 1977 featuring a wall!

Mark & Linda Howse, Impunity 2, Robin Alexander 2019. Mark's very high quality rebuild has been faithful to the original in virtually every detail, except the fiddle brake levers have been moved to the left hand side of the cockpit

Recommissioning Impunity 2

MARK HOWSE picks up the story:

"Impunity 2 chassis came with panels but the original bonnet had been lost. The following parts were also in the kit: dural front axle, imp stub axles, front A frame, most of the steering, Hewland TC 2 speed gearbox, rear prop-shaft, rear axle minus brakes, standard Anglia diff, 2 original rear wheels, 2 aluminium front rims and corroded fuel tank.

Restoration

- The panels were stripped off and some cracks were found in the chassis and brazed up
- New mounts and left hand fiddles made
- Larger radius on seat back made for passenger comfort *(refer to the low back the car originally had!*)
- Other parts to be made were transmission tunnel, bonnet, front drive shaft front radius arms, engine mounts, engine steady stay.
- Major parts to purchase were: Lotus Cortina brakes (*Capri 9" drums & backing plates were used originally*), steel spring/dampers, a Quaife diff (poor copy of a Fack diff) and a 4.8 C.W.P., BSA front hubs, Mini front brakes, Imp Engine.

I bought an SRB which had a 1200cc Imp engine. The idea was to fit a 1300 Suzuki engine (which I bought from Julian) to SRB and then sell it on, which I did. The trouble was the imp engine was absolutely knackered so I had to rebuild it. In hindsight I should have just bought a standard imp engine and built it up as a 1200.

Using modern stainless steel Wills rings (head gasket) was a mistake. 2 sets failed so I resorted to the original steel Wills rings which have worked well until the head cracked at the last event. I had to strip it down and weld up, so fingers crossed! The engine runs on Castrol R which everyone loves, the marshals often comment on it. It's taken about a year to get used to getting in to the car on the left hand side (!)but when you're driving you don't really notice it. It's a great lightweight car to drive and always gets admiration from onlookers. On a wet Trial it needs a 3rd gear really - the only other thing it needs is a top driver!

We have had good success in Post Historic Trials having won about 10 events. The car is surprisingly competitive in modern BTRDA events and we have won a few Live Axle Class awards. In the right events it can compete with the Independent cars. The car is virtually unchanged since its original design and is a testament to Julian's engineering."

The FACKSIMILE BY SABRE Story

The following article was written by Julian Fack for the Clear Round Magazine in the early 2000s.
It has been here edited by John Fack, and additional text added where appropriate. All John's comments are in italics.

During the summer of '74 I built a new car from scratch, Impunity II. It was very low in the bonnet line, and had a Hewland TC two speed gearbox, and left hand drive, but otherwise it was similar to the Cannon-based Impunity I. After shaking it down over a long period I started to enjoy some success in it, later enlarging the engine from 998cc to 1040, and later still to 1190. At this stage I had some informal enquiries about copies of Impunity II for other people, but it was obvious that the expense of the Hewland gearbox (£5000 in today's money,) coupled with the complexity of the chassis and the sophisticated Imp engine would make it too expensive for the trials scene as it existed at that time. Jack Pearce, and Tony Harrison, as well as Reg and Dennis Allen were doing well in their new Kincrafts, but Bill Evans and Bob Pardoe were also successful in their 1275cc BMC powered Beva and Dryad designs, and John Benson's BMC powered JABS were making sure that Jack's cars did not have it all their own way.

I therefore decided that a simple, relatively low cost car with a simple BMC A series engine and gearbox would meet most people's requirements. The Cannons, which were still trialling in large numbers, were no longer competitive, so I set out to provide a substitute for them, a simple car that would perform reasonably well, and would be cheap to build and maintain. There were to be no exotic components, in fact the design was based to a large extent on my brother John's BMC powered Cannon, which had been bought by Robin Alexander after John took over my Impunity I.

Although I had built a car for myself from scratch, I had no desire to build cars in quantity, since I was in full time employment elsewhere. I felt sure that the best way to produce chassis down to a price was to approach the professionals. The problem was that I had no idea who they were nor how to find them. I had been working in a vacuum, without any contacts in the motorsport industry. Geoff Herrington, Bill Evans' passenger and trials scribe for Autosport, worked at Silverstone on summer weekends running the press office. He knew some of the right people, so I turned to him for help. He took me to see Max Moseley, (yes that Max Moseley!), who was running March Grand Prix at the time.

Max was kind enough to give us a few minutes, and pointed us in the direction of Arthur Mallock. Arthur then gave me the number of one Bill Stone, who ran a fabrication business called Sabre Automotive, in Bicester, which was set up to cater for the racing car industry. The business was based in the back yard of an undertaker, and was pretty scruffy, but it was obvious that they knew what they were doing, making parts for many of the grand prix teams of the time. It turned out that Bill had been the first ever employee of March.

Roger Bricknell (and Julia) in characteristic pose at the Robin Alexander. He & the car went on to win 6 MSA Championships and 97 BTRDA events between 1980 & 2016, making it the most successful sporting trials car of all time, just ahead of Julian's X-Facktor with 88 victories over much the same period.

The problem with Bill's business was that it was totally seasonal, and during the summer all his employees would leave and join the racing teams, for some of them to return the following winter. When I told him that the biggest number of chassis that I could order would be ten, and asked, would that be too few for him to build economically? He burst out laughing and said that they had never built more than three of anything!

Betty Sheldon & Lynne Hoyle in the pink Mk3. This car won the HSTC Post Historic class 2019, driven by Andy Gowen

Not only that, the trials car chassis order (at the time we were only thinking of building bare chassis) would come to fruition in summer, so they would be able to keep their men employed, and the business could become a full time effort. We were both overjoyed, but I was worried about one thing, the necessity to produce engineering drawings for the project.

I told Bill that I was no draughtsman, and that the drawings that I could provide would be pretty basic, was that a problem for him? He laughed again, turned round and opened a filing cabinet drawer behind him. There were no files inside, but the drawer was full of opened out cigarette packets, scraps of paper and the like. He said "there are the Mallock drawings!"

I got on really well with Bill, and realised immediately that we could work together. I went home that evening realising that the Facksimile project was ready to roll.

I started take orders for chassis, but it soon became obvious that every customer wanted a complete car. I had no intention of getting into trials car assembly, or the supply of engines, but I reasoned that it should be possible to supply chassis in kit-form for easy home assembly.

With Bill's help I managed to produce a price list, and in no time I had a full order book: ten chassis, each one asking for every single part that we had on offer, including special radiators, fuel tanks, wheels, bonnets, upholstery and so on. We left the collecting of proprietary parts - tyres and tubes, batteries, master cylinders, engines and gearboxes and so on - to the customer. *(Sadly, Julian does not have any copies of the 1975 price list. He remembers that it was possible to build a complete car for around £1300, which equates to approximately £13,000 today. This would be with the A Series engine, not the more exotic options.)*

I got on with the job & produced my first ever set of drawings. Most Saturday mornings I would go down to Bicester to consult with Bill on the project. There was a likeable young man hanging around the place on Saturdays who was a racer, who also sold Formula Ford 2000 racing cars. I got to know him quite well, and in fact he later came along to a couple of trials. His name was Adrian Reynard, later the boss of BAR, the F1 team. After I met him he managed build up the worlds biggest racing car business *(March Grand Prix Engineering)*. His company later boasted that it won first time out in every single seater formula they made cars for.

Bill Stone was very helpful in refining the manufacturing details of the Facksimile chassis, and we managed to produce a light, simple frame that was cheap to fabricate, and has proven to last well - witness the number still around 45 years on. The Mk.I was designed for the BMC A Series engine with a Sprite gearbox, and a Ford Anglia 105E back axle, although a number of other units were fitted, including Lotus/Ford Twincam, Renault 16, and so on, even including one Imp engine.

Ivor Portlock, who had sold me the Cannon in 1972, my first trials car, had wanted to own the current "hot ship", which was a Renault powered Kincraft, but due to various problems he failed to secure one, and settled instead for the late Bob Pardoe's Dryad. This was a new design, based on Bill Warr's ideas, of which three similar examples were built. Bill's car had a Renault 16 engine and a Ford gearbox, but Bill Evans and Bob bought a couple of Marina 1275cc A Series engines from BMC where they both worked. Sadly Bob was killed in a road accident and so his car ended up in Ivor's hands.

Tenuous fun quiz: can you make the connection between Facksimile trials cars & Covid 19? See end for answer.

Ivor's original driving style was to trickle and he was very subtle in his choice of line on sections, but the huge extra power of the A series engine compared to the sidevalve Ford seemed to go to his head, and he never really got to grips with the Dryad, although he did once do something which impressed all those who saw it: he was competing at the Colmore Trial at the Ludlow site (as used for the Chase Trial in recent years), selected second, gave it full throttle and went straight up to the top thanks to the massive wheelspin rate. In those days all cars had normal road ratios, and the use of any gear other than first simply did not happen, so this was revelation.

Not long after that Jack Pearce persuaded Hewland to make the TC (Trials Car) gearbox, with interchangeable ratios, and the era of multiple gears had begun. Before that all Kincrafts had used the Ford E93A gearbox, which, being a three speed box, had a very high second gear, too high for anything other than flat out in muddy conditions.

Robin Jager in his BMC powered Mk1 75-01 bought from Robin Alexander. Robin was successful in NW events with this car.

In general Ivor felt that his style of driving was more akin to my own - ie more trickling than blasting - so he asked if I would build him a complete car based on my own Impunity II. I was busy at the time getting a second batch of ten Facksimile Mk. I chassis built at Sabre, but, unlike the first ten, not all were pre-sold. I decided therefore to keep four of the second batch aside for development.

I fitted an Imp engine to one of this batch, coupled to a Hewland TC box, and this necessitated a number of changes to the layout. I found that left hand drive was better suited to the car, so that the steering column could pass under the carburettors, exactly as on my Impunity II. Because the engine was originally installed at 45 degrees in the Imp, I kept it that way, which meant it was a very wide installation. In order to avoid the carbs hanging out of the side over the chassis rail, as in Impunity I, the engine had to be offset to one side. This left no room for the steering column to pass the engine block on the right hand side, hence left hand drive was the solution.

Left hand drive had another advantage for those who had long legs and who used their right hand for fiddle braking. On Impunity I kept the original Cannon position for the fiddle levers, on the right outside the body partly protected by the tree dodgers. This left room inside the cockpit for the driver's legs splayed out under the steering wheel, but it did leave the right hand and the levers vulnerable to overhanging trees. Copying Jack Pearce's early Kincraft idea, I incorporated a brass shear pin in the outer fiddle lever, but external brakes were still a problem, and many marks were lost due to releasing the levers just in time to avoid injury from trees. I designed an inside fiddle brake system later on which straddled the gearbox, which obviously meant using your left hand. Jack Pearce finally solved the problem much later on by building a very neat "T handle" fiddle brake into the bodywork to the right of the steering wheel, on the last few Kincrafts.

On the left hand drive cars I could use central fiddle brakes still operated by the right hand, so I kept it that way for the Imp powered Mk II.

I finished off the prototype Mk II for Ivor, installing a Greetham 1040cc Imp, and Jack Pearce had all the radius rods and the front axle chromed to Kincraft standards. Ivor kept the bodywork in polished aluminium, and the car looked very smart indeed. Unfortunately Ivor never settled down to develop the car, and the blasting style of driving which he had by then adopted did not suit it, so he lost faith in it and moved on to a Kincraft.

I had Sabre complete the second "development" chassis as a Mk. II kit, which was bought and campaigned for many years by David Bache, and eventually sold to Pat Henson. (*It has been bought relatively recently by Andy Jarvis*)

Marcus Croome, seen here at the famous High Peak site, was alone in fitting an Imp engine to his Mk1, hence the very low bonnet line. He also built his own front wheels and bonnet. 75-04 seems to have disappeaered.

The Mk II was quite complicated to build, and the Hewland TC gearbox was very expensive, but I was convinced that the lightweight Imp engine was the right way to go for the future. Production of the Hillman Imp had died some years before, but the engine was rehashed by Chrysler as the B1 and used in the rather nasty Sunbeam Hatchback (not to be confused with the Sunbeam Stiletto, which was basically a re-badged Imp Sport). The Hatchback used a shortened Hillman Avenger platform, which in Sunbeam Lotus form became a very successful rally car, but the bottom of the range used the B1, which was a 930cc version of the Imp engine, mounted upright and coupled to an Avenger gear-train housed in a special aluminium case.

As soon as I heard about the B1 motor I knew it would make a useful trials power unit. It had engine mounting bosses cast into the block, unlike the Imp, and it was just as light as the Imp. It also had a proper oil seal at the back of the block, solving the oil leak problem that dogs all Imp engines. It had a bigger clutch, solving a known weakness of "big" Imp engines. The Avenger based gearbox was strong, and not too heavy now that it had an ally case, and the flywheel was the same small size as the Imp, giving a good ground clearance. In short it was the answer to my prayers for a low cost Imp installation. All the development work done on the Imp for trials would carry over, and we could make big B1 engines of up to 1200 cc as we had with the Imp.

David Morris enjoying his Mk1 75-07 in Cumbria in 1977. He went on to an Imp powered SRB in the 1980s.

John Sheldrick was in some ways an unlikely Facksimile customer, since he preferred the "pedal to the metal" school of trials driving. Once he fitted the 1200cc motor in his MK3 he racked up 5 BTRDA wins, though.

A couple of years before this John Benson had spotted that the RAC Trials Formula allowed a minimum width of 48". All cars up to that time had been built to Cannon dimensions, about 52" wide, and sections had been wide enough to make the difference irrelevant. The advent of advanced cars like the Kincrafts and Benson's JABS, which steered well and was quite a good performer, led to a gradual tightening of sections, so that the width of cars became an issue for the first time. John Benson was the first to take advantage of the rules, which was a great shame, since the wider cars were better in many ways, they had room inside for two bulky people, and they were more stable on cross cambers. In retrospect I wish we had kept the Cannon width, but as with many new trends, by the time they are spotted it is too late to change.

I soon realised that the demand would be for narrow cars built close to the width limit, whereas the generally successful MkI Facksimile was Cannon width. Benson had reduced the width of a Ford Anglia axle, a task not to be undertaken lightly, to get his car narrow, but this did not fit with the Facksimile philosophy of cheapness and simplicity. Jack Pearce used the big BMC 'B' Series axle on the Kincrafts, so he had to narrow them regardless of car width, but I found that I could get down to 50" width at the rear, the same as the Kincrafts, by using a standard Anglia axle fitted with heavily offset wheels. At the same time the chassis and front axle were narrowed by 2". This modified design became the Facksimile MkIII.

Steve Courts has owned Facksimile 75-08 for many years - and he has 75-01 for Post Historics. 75-08 now has twin cam Suzuki 1300cc power. He has 14 BTRDA wins to his name in Facksimiles.

Ian Bell was one of the most successful competitors in a Facksimile Mk3, winning 3 MSA Championships on the trot 1993-95. It had a Kincraft rearx/gearbox arrangement latterly. Sadly this car was scrapped.

Apart from being narrower and having an upright Imp (B1) engine, the rest of the Mk III was much the same as the Mk I, but it was immediately successful. Part of the reason was that it attracted some top drivers, such as Roger Bricknell, who won six British championships in his Mk III, and Ian Bell who won three on the trot.

Although the Mk III has won countless trials, it is a simple car without any exotic components, apart from the "big" Imp engine which was virtually standard wear until the Honda Civic/Triumph Acclaim unit came along. The Mk III did, however, have a few weak points which were gradually addressed in the years that followed.

The first important modification for the Mk III was the "intermediate gear" modification, which followed from Jack's adoption of the Hewland TC, which I had rejected on the grounds of cost for the Mk III. Mike Endean, of Hewland, and I hatched the idea of modifying the Avenger gearbox to provide a gear half way between first and second. He realised that the third gear on the layshaft of the Avenger geartrain was big enough to allow the teeth to be ground off, and another gear to be cut into the remaining metal.

Pat Henson in the LHD Mk2 77-16, when it still had drum brakes all round. Only 4 chassis were laid down: one for the X-Facktor, one was built by Julian for Ivor Portlock but was rarely seen & the last was never completed.

A few Facksimiles made their way to the trials scene in Northern Ireland. This is Bertie Vaughn with son Mark Vaughn in the passenger seat in 75-14. Mark would later have a great deal of success as a driver in a Crossle 80T.

The matching Avenger loose gear, on the mainshaft, was made in two pieces which were pressed together. This allowed it to be disassembled the same way, and a new straight cut gear pushed onto the existing synchro hub, a very simple and cheap solution, which gave a gear, in third gear position on the lever, half way between first and second, exactly what was required. Not only that, but the conversion was cheap, and, as far as I am aware, has never been broken in 30 years.

Most of the ten Mk III cars had the conversion fitted, and many of them are still trialling today with it. Roger Bricknell found that using a 6.1 crownwheel and pinion in the Ford axle gave a useful 23:1 first gear, and, as well as the "intermediate gear", and some drivers with good engines also found that they could then use the 14:1 second gear to advantage in very slippery conditions, but the combination of high gears and strong engines soon exposed the well known weakness of the Ford differential. *(It was the 3 speed gearbox that transformed the performance of the car, when mated to a decent 1200cc B1. Finally drivers had an answer to the wheelspin rate of the big Kincrafts when the going was wet, as well as a decent low gear for trickling. Then Julian designed the Fack diff which completely solved the problem of the fragile Ford diff)*

A number of Facksimiles had engine transplants over the years. 75-14 has a Honda Acclaim engine, fitted by Gerald Heppelwhite before the car was bought by Dick Gowen. Driven here by Andy Gowen, with brother Dave as passenger. The Gowens made the spagetti 4 in to 1 exhaust system, which was very loud but very effective.

VARIATIONS & MODIFICATIONS

Over the years owners have seen fit to modify their cars to suit their tastes and their driving styles, and sometimes simply to follow current trends for better or for worse. The Imp and B1 engines could be expensive to maintain if they went wrong - but as mentioned previously Julian and I did over 50 full seasons (probably equivalent to 600+ events!) between us using a Greetham Imp and nothing major ever went with either of them - and at the same time became very valuable, so they have been swapped for Honda Civic motors, Suzuki Swift 1300cc and Vitara 1600cc 16v (the engine that Jerome and I use in the MSR). Of course this means that those cars are not eligible for the Post Historic class in the HSTC as they stand - and they would be expensive to reconvert to Imp/BI power.

Another common mod was fitting disc brakes to the front, back or both axles- which also means exclusion from the HSTC, but it's relatively simple to convert them back to drums front and back. Note that it might be getting harder to find the original Facksimile or Kincraft drum-braked wheels.

A good period mod was moving the rack from the back of the axle to the front. This was the ony way to get optimum Ackermann across the full steering range and is a thoroughly good idea (if it has been done right).

At least one Facksimile (apart from the X-Facktor of course) has been converted to IRS, but I believe it has now been converted back to a live axle. There is a small number of chassis around that have been butchered for various reasons - these might seem a tempting option but in general are best avoided.

If you're thinking of buying a Facksimile of any type for Post Historic or BTRDA/750MC use, it is worth talking someone who knows the marque before parting with your money.

SUMMARY

Julian set out to make a simple, strong, understandable & affordable kit to bring people in to trials in the mid-1970s, and I think it's fair to say that time has proven that his objectives have been met - the marque went on from where the Cannon left off. The Mk1 & 2 may not have been that successful in terms of wins, but they certainly brought quite a few people in to trials. The Mk3, equipped with the 1200cc B1 motor and 3 speed box, and perhaps more significantly, quality drivers, were very successful back in the day just as they continue to be in Post Historics today.

One of the Mk2 chassis was developed by Julian into the X-Facktor - basically a MK2 with IRS. The X-Facktor has gone through continuous development form its first event in 1982, and has racked up 88 BTRDA trials victories along the way, making it the second most successful sporting trials car of all time after Roger Bricknell's Mk3. At the time of writing it is having a Vitara 16v motor fitted, and it should be ready for the second half of the BTRDA season.

I am putting together a production/owners list for Facksimiles - this is of course an on-going process in which I Idepend on information coming in to me from current & former owners and others. The process is made more difficult because the Mk3 cars did not have serial numbers. It seems that 3 cars have been scrapped, 7 are currently dormant, 6 unknown and 10 are in current use. I would of course be grateful on further information as it comes to light - but it seems there must be a small handful of cars out there looking for new owners for Post Historic or BTRDA use.

TABLE of RESULTS

Car	Chassis Built	BTRDA wins	MSA wins	Gold Stars
Impunity 1	1	16	1	1
Impunity 2	1	33	3	0
Facksimile Mk1	15	52	0	1
Facksimile Mk2	4	0	0	0
Facksimile Mk3	10	118	9	3

***Tenuous Quiz answer**: Facksimile - Bill Stone - Adrian Reynard - March Grand Prix - BAR - Brawn GP - AMG-Mercedes GP - ventilators for Covid 19*

John Fack
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