Ark Racing

A History

ARK RACING

THE BEGINNING

Derek Matthew was born in 1934 and after leaving school joined the Merchant Navy, where he reached the position of Master Mariner. He left the seas in 1964 and joined the Midland Racing Partnership a team of Wolverhampton based enthusiast who had joined together to race their Formula junior and Formula 3 cars. By the time Derek joined, they had progressed to running what was in effect the "Works" Lola Formula 2 team. Their driver included Richard Attwood one of the founder members, John Surtees, Paul Hawkins and Frank Gardner. The team disbanded in 1966 and Derek joined Roy Hill running the Ark Service Station in Clarks Lane Willenhall. Here Derek prepared a number of Roy's cars, including an Austin Healey 3000 that was raced and sprinted in 1965 and 1966 with Derek having the occasional outing in the car. As was a Sunbeam Alpine (9202 RW) that had been used by the Roots works team at Le Mans in 1962 and in the Monte Carlo Rally in 1963. This versatile car would find its way back to Ark Racing in 1972, when Derek converted it into a rally car for Roy Hill. There was then a Lotus 23 that Roy raced in 1967 and 1968, a project was then undertaken to fit a Mercury GT body to the car. Ken Hobley who had joined Derek as a helper started work on the car, which was offered for sale by the Ark Service Station in October 1968 as a Lotus 23 with GT Body. The conversion was never completed and the car was sold with the GT panels almost certainly going with the car.

In 1968, Derek set up in a small workshop in Croft Street Willenhall. The site had originally been a foundry owned by Perks, who had closed down, and they let off all the buildings and the site became a hive of industry in the centre of the lock making industry and many firms had their beginnings on the site. Derek took the name Ark Racing from the Ark Service Station, which in turn took its name from the Noah's Ark pub, which was across the road from the service station. From this workshop, Derek prepared a Diva GT car for John Anderson. One day in 1968, Derek was working on a customer's Lotus 23 when a young man entered into the workshop, asking if there was any chance some one could teach him to weld. Aldon Automotive had lent him a set of suspension wishbone drawings and he wanted to make up a set for a racing Sprite he was building. The car, he said, was being constructed at the nearby premises of Orwill Engineering, small toolmakers run by his father. Matthews told him that fabrication of vital suspension components was hardly a job for a novice end suggested he came round that evening to see the project for himself.

Jim Evans 2/5/2000

ARK RACING

JOHN BANKS

As a result of his meeting with John Banks, Derek spent many hours helping the ex-driving test and sprint exponent, and his friends, including Ray Concar build Johns new Sprite. Although rather radical, it was actually based on a proper Sprite floor pan. Chris Smith had persuaded Banks that he ought to take up circuit racing; to help him on his way Smith had found him a damaged shell for £25. Banks was no engineer and he recalls that Matthews soon took control of the project while Banks was responsible for keeping the band of helpers supplied with endless cups of tea, and masses of chips and cakes.

By the end of 1969, his first season, Banks had recorded eleven top three placing from twenty-one outings in his 1300cc Sprite. At one Silverstone meeting, another competitor told him that the word in the paddock was, that the Sprite's chassis had cost £2,000 to develop, and asked if this was true. He could scarcely believe the reply -that the car was based on a written-off shell and some cheap lengths of steel tube.
As a spectator at the 1968 Silverstone Grand Prix Circuit Clubman's Meeting, John Banks had watched Roger Enever throwing his Midget 138 DMO through Woodcote; right on, the limit and recording record-breaking lap times of 1-52. He was convinced he would never be able to drive like that. At the same meeting, on 17 October a year later (in what was to be his last outing in this particular car), he sat on the grid, determined to make up for a poor practice time. He made a demon start from the second row, and slotted in behind the leading AC Cobra. Down the Hanger Straight, Lord Cross overtook him. Also in a Cobra, and demoted to third.
Shortly afterwards, the leading AC dropped out, leaving Banks and Lord Cross to dispute the lead. Lap by lap, he reeled him in. In the Woodcote grandstand, his father was shouting 'faster, faster', while his mother pleaded 'slower, slower', as Banks came through each bend increasingly on the limit. He had to settle for second overall, but won the class and lowered the class record to 1-50, taking 2 seconds of Enever's 1968 time. He also bettered his previous day's practice time by 3 seconds.
Journeys to and from the circuit are not always straightforward. John Barks remembers one outing at Aintree, where the unfortunate crew had a puncture on the way to the circuit and had to change the trailer wheel. On the way back, they had another flat, this time on the M6 with no spare, and began to wonder how they would get home. From his cycling days, Banks remembered a 1930's bike book that suggested, in the event of a puncture, removing the tube and filling the tyre with grass just to get home. One of the lads took off the offending wheel, while Banks pulled up grass from the verge and with a great deal of steam from the tyre; they completed the final part of the journey.

The changes in the regulations for 1970 meant that the car was ineligible for the renamed Modsports formula. They stipulated that the monocoque had to retain standard material, stress- bearing parts, between the wheel centres. Banks sold the Sprite via an Autosport advertisement to Irish driver Arthur Collier.

Derek Matthews suggested to John that it was mad to pay to enter races in the UK, when, with the right car, it was possible to be paid start money to race in mainland Europe. In his workshop was an old Ford twin cam engine, and plans for a very special Sprite began to evolve and work began on the ARKSPRITE TWIN-CAM-70l.

Jim Evans 2/5/2000

ARK RACING

Arksprite Twin cam

In his workshop Derek had an old twin cam engine, and plans for a very special Sprite began to evolve and work began on the ARKSPRITE TWIN-CAM 701 to give the car its full title.

It had a totally space frame structure, the only thing Sprite about it being the Smith and Deakin glass fibre body suitably modified for the wide wheels and extremely low profile. The frame was fabricated from both 1 inch and 3/4 inch, square steel tubing, and to this was added an aluminium sheet monocoque and fabricated alloy doors. It had a strengthened Ford Anglia back axle, with Hewland limited slip differential. At the front it had modified Triumph Herald suspension with fabricated wishbones. Power came from the dry-sumped Lotus Twin-Cam 1600 engine, which formed a stressed part of the chassis, and there were Girling discs all round. A Ford racing close ratio gearbox completed the drive train and Janspeed were commissioned to make a special exhaust manifold. The project started in January and took six months for Derek to complete with the help at evenings and weekend from Ken Hobley, Ray Concar and Fred Ray.
In June the car was taken to Silverstone for a full day's testing in the hands of John Banks and Chris Smith, who also had considerable previous experience in Sprite's.

During the test session, the car was run without its front bodywork so that the mechanics could observe the suspension working, and it was returned to the pits for periodic adjustments. By the end of the day it had covered, a distance equivalent to ten club races and all seemed to he well.

After competing satisfactorily in a number of club GT events, the car was entered for the 1970 750 Motor Club Birkitt 6 hour relay race at Silverstone. The other two members of the team were Jeff Simpson in his Davrian and Arthur Collier, who brought Banks's original BMC 1300cc Sprite over from Ireland. Despite what they considered a reasonable practice session, the team ended up with a lowly grid position. However, after 46 minutes had elapsed, Collier had worked his car up to sixth place and came in to hand over to Banks in the Ark Sprite.

Banks capitalized on the new car's excellent handling and, by the end of his stint, the team was running 3rd next it was the Davrian, but Simpson suffered engine problems that dropped the Ark team back to 6th again. Chris Smith took the wheel of the Ark Sprite, fought back and was in the lead, before returning to the pits for the planned hand-over to Collier.

Collier circulated in the lead for a while, but the pace took its toll and the transmission broke, He limped back to the pits, losing places on the way before Smith took over once more. The Collier Sprite was soon found to be beyond immediate repair so the team was down to one car During the last hour, Smith put in an inspired drive and snatched back third, and then second place during the last five minutes of the race.

Following a check, the car was deemed ready for its first International event and the Ark team set off for the 1970 Nurburgring 500km race. They arrived in good time and were able to get in two days' practice before the official qualification session. The car, driven by John Banks, ran mid-field for most of the race, but in the closing stages the crown wheel and pinion failed. The Sprite was classified as a finisher and had covered sufficient distance to come 2nd in class. It had done the equivalent of forty club races, so when it returned to base it was stripped and rebuilt and the team also took the opportunity to modify the suspension.

After a class 3rd in the GT Race at Thruxton on 11 October, the car was now entered for its next International outing, the six-hour event at Jarama Circuit in Spain, on 11 November. A team of six people was assembled for this mammoth trip. The Sprite was towed on the back of a white Ford Thames 15 cwt van, 561 NBA, went to look after the car They did the journey in two days without stopping, with one driving, one navigating and keeping the driver awake, and the other four trying to snatch some sleep in the hack. They were confident that the tight Jarama circuit would be ideal for the Sprite.

During pre race scrutineering, an official noticed that the car sidelights did not function. The team already knew this; but did not speak any Spanish, and was unable to communicate with him. In the did, Smith pointed to the lights, shook his head and kept repeating 'El duffo, El duffo'; this immediately became his nickname for the rest of the trip.

The car ran well in the race, getting as high as 2nd in class, but had to retire after eighty-two laps. The thread on the front wishbone broke, scoring a big groove in the Minilite wheel; Smith struggled on with the car but had to give up because he could not steer it. As the team was loading up the car after the race, a local garage owner approached them offering them a large amount of money for the set of Minilite wheels. They turned the offer down, feeling sure that British Customs would not believe that they had lost all four wheels in one race.

That evening there was a big prize- giving ceremony at El Cerebro, a fashionable Madrid nightclub; guests included Alan de Cadenet, Jo Siffert and Pedro Rodriguez. The Ark team went along for the party and to collect their £200 start money, which they needed to get hone. The organizers told them it was normal for a cheque to be sent on, but Smith was adamant: they had to have the cash to buy petrol for the return journey, The organizers relented and the Ark team was the only one to got cash on the night.
Handing over the money, the official told Smith that they were organizing a meeting at Tangier the following weekend and that if the team could get the Sprite fixed, they would get £400 start money to take part. The lads were keen, but Smith had only been married a few weeks, and went off to ring his wife from a phone box outside the club, He was told that if he did not get home by Tuesday, he should not bother to return at all. They left for England that night, again doing a non-stop trip, with Smith and Concar doing most of the driving as the others slept off hangovers in the back of the van.

The channel crossing was particularly rough and most of the passengers were badly seasick, Smith, who never suffered, and ex-seaman Matthews stuffed them- selves with steak, joined by the purser and head chef, the only other people left standing. They even managed to get a free bottle of red wine to go with their meal.

For 1971, a full season of International endurance racing was planned, but, owing to a change to the PIA regulations, the car became ineligible. Plans were changed to take in GT races on the home front, Parts of the car were up-graded and the front uprights, which had previously given problems, were strengthened. Having come the previous year, the Ark team's objective was to win the Birkitt six-hour race on 15th August. This was being held for the first time at the recently opened Thruxton Circuit, near Andover in Hampshire.

The plan for the Birkitt Relay was to run the Arksprite, with Banks and Smith sharing the driving, for the majority of the six hours, using Fred Booth by's Lotus 17 to cover the driver change and service periods. As in the previous year the team had a poor grid position, but Smith who took the first stint at the wheel made a demon start and by the end of the second lap was running in 2nd. Lap 4 saw him in the lead and, by the end of the second hour; he had a five-Lap advantage over the F100 Sports car Team.

Having been out for eighty-nine laps - two hours and twenty minutes at the wheel Smith drove into the pits and handed over to Booth by. The next forty minutes saw fervent activity, both in the paddock and on the track. Booth by did well to maintain the lead in his less powerful car, while Derek Matthews and his crew refuelled and serviced the Arksprite. At three hours, Banks took over in the Arksprite; the teams lead now two laps, at half distance.

Fred Booth by did one more half -hour stint in his Lotus, while the Sprite came in for another maintenance check and the final driver change. Chris Smith drove throughout the closing stages and the team took a well-deserved victory, having done 217 laps at an overall average speed of 86.8mph (140km/hr). It was the first time in the 21-year history of the Birkitt relay that the wining car had covered more than 500 miles (over 800 km). They collected the Cars and Car Conversions trophy for the overall winner, the Speedwell Cup for the first car to exceed 500 miles, and prizes for leading at the end of the 2nd, 3rd, 4th and 5th hours. It was a clean sweep.

Further regulation changes in 1972 meant that the Ark Sprite was laid up for four years in a lock-up garage in Coventry, before being sold to Phil Jeffreys, in 1975. Jeffreys used it successfully in sprints and hill climbs, so successfully, in fact, that a number of other competitors began to question the legality of the car. To stop any further criticism, Jeffreys decided to convert it to a Special GT saloon, and run it in that category.
The cars final outing in Sprite form was at the 1978 racing car parade around the streets of Birmingham, a publicity event prior to permission being granted for the Birmingham Super Prix. James Thacker was also taking part, in his Modsports Midget. Jeffreys offered him the Arksprite body and moulds, which would lay surplus to requirements once it became a saloon. The Midget being raced by James hackers in 1998 still had the original Ark bodywork.

Jeffreys added 6in (15cm) to the Ark chassis, lengthened the prop by the same amount and fitted it with .a glass fibre Reliant Kitten body Regular Lyddon saloon competitor Mike Scott bought the car for the 1991 season. After his first outing at Brands, he was approached by Autosport writer Dud Chandler, who confirmed the history pf the car. Scott decided to restore it as a result of a small piece Chandler had written about it in the magazine, James Thacker got in touch with Scott to tell him he had the original body moulds, and Derek Matthews and Jim Evans offer their support with advise and photographs of the original car.

The car was to remain in its Reliant guise until Scott's last race at the end of the 1993 season. He took it back to his workshop and began the painstaking task of cutting the body off. Having cut the extra inches back out of the chassis, he added Sprite bodywork, then found and rebuilt a Ford 1600 Twin-Cam, similar to the original one with which the car had raced in 1971.

A Reliant Kitten Special GT, with a 200bhp BDA engine, it was a real struggle to get the car round the Mallory Hairpin. The first time Scott drove the rebuilt Ark Sprite Twin-Cam round the Leicestershire circuit it handled like a dream. The lengthening of the chassis six years previously had apparently completely unbalanced the handling; The Sprite then competed in the Historic Sports Car Club RIB Mining Championship for Group 6 Sportscars. Derek Matthews saw it at Mallory and commented that it did not look very different from the car he designed and built twenty-five years ago. In 1999 Mike Scott advertised the car for sale and Brian Austin from Walsall, who planed to compete in Sprints and Hill Climbs with the car, purchased it. Thirty years earlier Brian had been a friend of Ken Hobley who helped build the original car in Ark Racing Willenhall workshop, which Brian recalls visiting with his friend and seen the car being built, so he had always had an interest in the car an saw this as away that it could be returned to its place of birth.

Jim Evans 2/5/2000

ARK RACING

"VOGUE" SPORTS CAR

One of John Banks's friends who had been involved with the building of the Arksprite was Lester Ray known to everyone as Fred. Who had ambitions to become a team owner / constructor. During the winter of 1970/1 Fred had accumulated enough money to start his climb up the motor racing ladder and asked Derek to design him a two seater sports car .It was decided that it would be built around a basic tubular chassis that had been built by Arch Motors from jigs that they used to build chassis that were supplied to Gropa.

From this bear tubular chassis Derek with Fred labouring, set to work cladding the centre section in Aluminium to create a monocoque. The front suspension was Ark Racing built using wide-angle double wishbones to modified Triumph Herald uprights, with coil spring damper units and a Triumph rack and pinion. The rear suspension was by wide based reversed lower wishbone, single top link and twin trailing arms to Chevron uprights with coils/spring damper units. Ark Racing made brakes. The car ran on Dunlop tyres on Revolution rims.

Power was provided by a rear mounted Ex-Formula Three, Four cylinder Cosworth MAE engine of 997cc, with a single down draft Weber Carburettor from which Felday Engineering had extracted 100 Bhp. Transmission was via an AP Twin 7 114" die clutch through a Hewland FT200 Five speed and reverse gearbox - final drive unit with a central gearchange. The Serck copper radiators were mounted on each side of the car and the original distinctive white fibreglass wedge- shaped body was designed and built in house by Derek Matthews and Lester Ray. The car that had a 100-litre fuel tank mounted behind the drivers seat weighed in at approx. 650kg.

The car was built during 1971 and had its first outing at a very foggy Silverstone club circuit in September driven by Go Kart racer Paul Chalmers who had financed the engines. The pair made their race debuts at Oulton Park on the 16th October in the Humble Group Trophy race for GT cars over 10 laps of the 2.76 miles circuit. When the car was entered as the DM6 (Derek's sixth car). Paul's first lap of practice was stopped when he encountered the overturned Chevron B 19 of race sponsor's son Peter Humble on the exit from Deers Leap.

In practice for the race, Paul recorded a time of 1 mm 58.0 seconds, equal 7th fastest overall and fastest for his class. The car was also entered for the Formula Libre race but only to give Paul extra practice and he improved his time to 1 mm 55.2 sec. Paul drove a steady race taking 5th place overall, a class win and fastest lap for the class, one lap down on winner Peter Smith 1800cc Chevron B8. The following day Paul again set fastest lap for his class in the Special GT race at Thruxton, being defeated in the race by Motoring News GT champion John Anstice Brown' s Rejo as he finishing 8th overall.

The perennial cash shortage did not enable the car to be developed as had been hoped but during 1972 money was found from a potential driver to purchase a Ford Cosworth 1600 FV A engine on Weber 50 DCOE Carburettors but after a brief test session, the deal fell through and the car was sidelined until the end of 1974.

In October 1974 the car which Fred Ray had now decided to call the "Vogue" had a 1800cc 4-cylinder, 16 valve Ford Cosworth BDG engine with Lucas injection installed, and was entered for a Formula Libre race at Thruxton on the October, The car failed to make the meeting but for 1975, Richard Jenvey the Bridgnorth Modsports Lotus Elan driver put together a deal with Lester Ray to drive the car with Derek Matthews continuing the preparation.

Richard made his debut in a Formula Libre race at Thruxton on the 2nd March and after recording 6th fastest time in practice finished 8th overall, in a race shortened to 8 laps (19 miles) because of the wet weather, Richard being a lap down on the winner after two spins. Even though the car had been tested more was still needed but Richard had driven the car enough to prove that the body shape provided too much down force at the front. This resulted in a change to a more rounded nose. The modification being carried out in time for the sports car race at the International Trophy meeting at Silverstone on the 13th April. While Derek and Ray were carrying this out, Fred and Richard were busy installing a six-cylinder Jaguar engine into the Bedford TK transporter.

Testing before the meeting proved that the modifications to the body were going in the right direction and time was found to experiment with spring settings. In practice a severe misfire plagued the engine, but with the car running right in the race Richard soon moved up to 7th place by lap 8, but an oil leak bought an end to the race. To get in testing mileage, the car was a late entry in a Formula Libre race at Aintree on the 19th April Richard finishing 3rd behind Before the car's next outing at Snetterton on the 15th June, Derek checked over the engine and more or less rebuilt the car adding a short rear wing. For the BARC Sports Challenge race Richard qualified in 5th place, but heavy rain just before the start caused the car to be withdrawn, as no rain tyres were available.

The main aim for the season had been to contest the European 2 litre Sports Car Championship, but with one race after another being cancelled in Europe, instead of being the fifth round, the series opened at Brands Hatch on 22nd June with the Brittanica 2000 race held in two heats each of 40 laps (106 miles), outright victory going to Jorge Obermoser's Toj-BMW from Guy Edward's Lola and Ian Grob' s Chevron. Qualifying 21st out of a field of 25 cars, Richard finished 13th in Heat 1 and 11th in Heat 2, covering 37 laps in each heat and being placed 9th overall; this following pre race drama when the brakes locked on in the pits as the car was due to go onto the grid, it also saw the car's first outing on Goodyear tyres. Other races were undertaken. At Knockhill on the 13th July, Richard finished 6th, and Mallory Park on the 3rd August, which saw a double victory for Ark Racing, Richard winning the Formula Libre race and John Evans winning the Modsports race in the Ark Racing Lotus Elan.

The European Sports Car Championship had been reduced to only two rounds, the other being at Hockenhiem, Germany on the Sunday 31st August. However as a test run before this race it was decided to take in another BARC Sports Challenge race at Castle Combe, the previous Monday (a Bank Holiday). Richard qualified on pole position and led the 10- lap (18 miles) race until half distance when the engine dropped a valve, victory going to Peter Andrew, Martin BM10. Frantic work by the team saw them arrive at Hockenhiem, where Richard qualified 25th and managed 16th in the 1st Heat with a down on engine power. By the time the cars came onto the grid for the 2nd Heat it had started to rain, so Richard pitted and after delaying his restart, while the rain abated, rejoined to finish 18th overall some laps behind the winner The final outing of the season for the Vogue was at the Silverstone Finals meeting on the 28th September when the car was a late entry in the Formula Libre race with John Evans at the wheel, John had just won the BRSCC Midlands Modsport Championship in his Ark Racing built and prepared Lotus Elan, and fancied a try in a different type of car. The newly built engine misfired all through practice and after many attempts to cure it John decided to start from the back of the grid but after 2 laps decided it was not worth racing and the car was retired.

Only two major sports car races had taken place in Britain during 1975 the round of the European 2 litre Championship at Brands Hatch and the Non Championship race at Silverstone International Trophy, both of which had been contested by the Vogue. 1976 was to be a rebirth of sports car racing on British circuits with the RAC organizing a 2 litre Sports Car Championship for group 5/6. With this series promising 7 rounds and a minimum race distance of 50 miles, this was planned as the backbone of the Vogue's season with the possibility of also entering some World Sports Car Championship races.

Over the winter Derek considerably modified the Vogue. The front part of the chassis was renewed and new front suspension built with revised geometry, using March uprights and Ark made wishbones, the track was widened and a new steering rack fitted. At the rear March uprights were again used, with parallel bottom links and new drive shafts. New bells were used for the AP twin-pot brakes on 10- x 0.8" ventilated discs, the gear

change linkage being moved to the right side of the car. While this work was being carried out in the Ark Workshop, Lester Ray and Richard Jenvey designed and built a new body basically as it is today, the Golf Diesel Aluminium radiators were moved further back at the side of the car. A centrally mounted rear wing was fitted, the car changing its colour to blue, with a white wing.

The car was entered for the Nurburgring 300 km race on the 4th April but was not ready in time. The first two rounds of the RAC Championship were at Snetterton and Silverstone over the Easter weekend, and the team then planned to go to Monza: (Italy) for a 4 hour race a week later on the 25th April. As work progressed up Easter, it became obvious by mid-day on Good Friday that Snetterton would not be achieved and by Sunday evening, the following days Silverstone outing was called off as the car was not fully race prepared there was also delays in preparing the transporter, but it was still hoped Monza could be made. By Tuesday having worked most of the last five days the car was still not ready for the planned test the next day, so reluctantly it was decided not to go to Monza without testing especially as the engine had not been run since the end of last year.

A week later the car turned its wheels for the first time in 1976, at the weekly afternoon test session at Aintree, but after 10 laps the engine ran its big end bearings. The following week the team were back at Aintree with a 1900cc BDA engine installed in the car; this being hired from Chevron driver Tony Chamell. A further outing at the Friday Silverstone test session in which 50 laps (80 miles) were covered, saw improvements made in handling so the car was taken to Knockhill in Scotland for a Sports GT race on the 13 July. Second fastest time in practice saw Richard sharing the front row with lain McLaren' s Chevron B26, but when it started to rain as the start (of the 12 lap race) drew near, everything seemed lost as the team were still without wet weather tyres. With water in the engine lain McLarens spluttered to a halt and as the track then dried Richard took the slick shod Vogue to victory, a fillip for the team after the recent setbacks.

There was further encouragement for the team when Richard qualified 7th fastest in the 3rd round of the RAC 2 litre Championship at Oulton Park on the 31st May, this despite minor overheating oil problems, the engine running rich and incorrect gear ratios fitted. Between practice and the race new oil cooler was fitted, gears were borrowed from helpful rivals to achieve the correct ratios and the engine settings changed. The 25 lap race (41 miles) race started well with Richard up to 6th place but a top end engine misfire held the car back, fuel surge resulted in the engine cutting out late in the race, and Richard lost his 6th place on the last lap, victory going to lain McLaren' s Chevron B26. The team left the meeting with enough confidence to enter the lnterserie race at Zolder in Belgium two weeks later on the 13th June.

By this time their own engine had been rebuilt and the team stopped off at Silverstone to run in the engine before catching the boat to Belgium. During practice in Belgium the engine overheated and the oil pump drive sheared and then in pre-race warm up it ran its bearings. Derek and the team set about replacing the shells, which they did in about an hour, but there was no oil pressure when the car completed its warm up lap and was disappointingly withdrawn before the start.

Following this disaster, the team took stock and with its very limited budget decided to rebuild their engine, fitting a new crankshaft. Time was hired on a test bed and the engine run up successfully and was fitted to the car, which, during the break, had new front bodywork fitted which included cooling ducting for the front brakes, and a new air box fitted for the engine and for cooling the fuel collectors pot. Ten laps (16 miles) of the Silverstone Club circuit were completed with Richard reporting that the engine felt better than ever before when ahead dropped off a valve holing the piston and doing extensive damage to the cylinder head. All this happened a week before the team were due to make a return visit to Zolder for a Sports Car race on the 15th August.

With support from Arthur Rough & Sons Ltd., Fred Ray hired an 1850cc BDA engine from Andy Barton and arrived back at the Ark Racing workshop at 5.30am on Friday morning, frantic work saw the engine installed and the team set off for Belgium later that day.

The engine delay caused the team to miss the first practice session, but Richard whose only experience of the circuit was 12 laps on his previous visit ended up 5th fastest. The engine cut out at the start of the 18-lap

(46 miles) race, but Richard proved both his and the car's capability by pushing through to win the 2-litre class by 2 seconds from Bob Marsland' s Chevron B31-Hart. Martin Raymond in his 3-litre Chevron-DFV was first past the chequered flag but for some obscure reason he was not officially classified, so Richard was presented with the winners garland and trophy, Richard sportingly handing over the garland to Martin, as he knew there was nothing he could have done about the DFV powered car. On the cars returned home it was displayed at the factory of Arthur Rough & Sons who had helped in its success.

With the BDA only being hired for the Zolder race, Derek again set about rebuilding Lester Ray's BDG, a new cylinder head was purchased from Cosworth which was found to have the valve seats machined 10 out of line, this seemed to be the story of this particular engine.

A replacement head was obtained and the installation completed by 9.30pm Saturday evening, the team then left for the next days 4th round of the RAC 2 litre race at Thruxton. On the way Lester Ray's Transporter broke down and frantic phone calls to Derek Matthews who had decided to drive down the next morning, saw the Ark Racing van and Richard Jenvey's Trailer rushed into service to get the car to the circuit in time for the second practice session, in spite of the problem Richard quickly set equal 5th fastest time. As the cars filled the assembly areas the rain started, and became a torrential downpour as the cars completed the warm up lap. Some cars were driven straight into the paddock as their drivers considered the circuit unsafe, the Stewards delayed the start of the race for an hour, but even when the restart took place most people considered the conditions were not any better. Richard kept the car in the pits hoping for the rain to stop, as the team had still not been able to afford a set of wet tyres. lain McLaren wrote off his Chevron against a marshal’s post leaving Tony Chamell to take victory in his Chevron B26B-Hart from many time spinner John Lepp's March 75S-Hart.

Following the disappointing week-end the team could at least look back that the engine had run satisfactory, and a week later the car covered 160 miles at Silverstone during which time they had the luxury of doing back to back tests between Goodyear and M & H Tyres, and Spax & Armstrong shock absorbers together with a variety of springs.

With the confidence of the test behind them the team entered the 5th round of the RAC Championship at Brands Hatch on the 12th September, Richard making everyone look over their shoulders by setting 5th fastest practice time, but just before the end of practice the engine again ran its big end bearings, which were changed before the race, but went again on the warm up lap and the car was withdrawn. The season finished at Mallory Park on the 9th October with the 6th and last round of the RAC Championship. John Lepp already having the series firmly in his pocket having won 3 out of the 5 previous rounds crashed in practice and became a non-starter. While the misfire returned to the Vogues engine during practice, Richard was 19th out of a 20-car field and as it had not cleared on the warm up lap, Richard pulled off the grid to allow a reserve to race.

Altogether a disappointing season, Fred Ray's engine never being satisfactorily sorted out, and the cost of continually rebuilding the engine and lack of testing never allowed the team to achieve its full potential and build on its wins at Knockhill and Zolder.

For 1977 Lester Ray and Richard Jenvey decided that with the small budget available they would look after the car themselves, leaving Derek Matthews to move onto a successful association with Max Payne.

They entered the car in world Championship 500km Sportscar races at Dijon where it retired after 7 laps and Paul Ricard where it retired after 107 laps.

Jim Evans 2/5/2000

ARK RACING

JOHN EVANS

Early in 1972 Derek was approached by John Evans who had been racing in Modified Sports Car Racing with a 04 Ginetta, to see if he could build him a Lotus Elan to move up a class in Modsports racing. The Lotus Elan 73M was built using a standard Lotus Elan chassis, a coupe Roadweight 'Elan body was modified to cover the Firestone tyres on 14 inch wide Revolution rims. The engine being a Lotus Ford twin cam of 1598 cc capacity prepared by Phil Markes Engine Developments from a Vegantune Formula Atlantic engine. The car was tested ready for the start of the 1973 season and John took it to victory on its first outing at Silverstone. This was followed by another outright win at Snetterton, and twelve other top placings in 21 outings. Collecting the outright Modsports lap record at Mallory Park, a class record at Aintree and 2nd place in the up to 2 litre class of the Blue Circle Modsports Championship.

For 1974 the Elan became one of the first modsports cars to be fitted with a front spoiler and a small rear wing that fitted to the boot lid. After a series of engine problems with a 2-litre engine, a new 1800cc engine was fitted midway through the season, the front body of the car was restyled, the size of the rear wing increased. Derek had been introduced to Tony Gilholm who was in charge of the Goodyear Racing Tyre Division in Wolverhampton, who was able to supply the team with some new Goodyear tyres. John then became one of the quickest drivers in Modsports, taking outright victories at Aintree, Mallory Park, and Silverstone.

In 17 outings only once finishing outside the top three in his class, this being when he was involved in a collision with another car. In addition John set a new lap record for his class at Castle Combe, and again finished 2nd in his class in the BARC Blue Circle Modsports Championship.

1975 was John's heat ever season with the Elan, winning his class and the outright championship of the BRSCC Modsports Series, and finishing 2nd in his class behind the overall champion in the BARC Series, achieving outright wins at Mallory Park on 3 occasions, Silverstone twice and once at Thruxton. Except for three retirements he never finished out of the first two places in his class in the other 18 outings.

Following a trip over the kerbs at Fosters Folly corner at Oulton Park on the 2Sth June, following a coming together with the Morgan of Robin Gray, damaged the front of the car; it was restyled with a slightly larger and rounder nose, the wing enlarged in size, and for next race again at Oulton Park on the 12th July. The car was run without its roof as an open car with and aero screen. The hoped for improvement was not achieved, so the car was returned to a closed car. John achieved, his best performance in the Elan, when in very wet weather conditions at Thruxton he won the 10 lap modsports race by 45 seconds, from the best, the class of racing could offer, this performance was aided as Tony Gilholm had supplied the team with a set of hand cut wet weather tyres made from a set of very soft tyres made as qualifiers for Emerson Fittipaldi's Formula One McLaren

At the end of 1975 John Evans sold his car to John Bury, the managing director of Southport Motor Series Ltd., who had been competing in Modsports with an MG Midget.

During three years competition with the Elan John Evans finished first overall on 11 occasions out of 58 starts, taking class wins on 18 occasions, -and during this period the car failed to finish on only 7 occasions and had been out of the first two in its class twice.

The rebuilding of the engine enabled Phil Markes to obtain more power from the 1800 Lotus Twin Cam unit and this combined with a change too much stiffer and wider Formula one Goodyear Tyres enabled, John and the Elan to become the fastest combination on Modsport Racing. Setting the fastest lap in each of the last ten races in which he took part, including new lap records for his class at Aintree, Ou1ton Park and

Snetterton, while recording six outright wins and four seconds in the same races. After the last race of the season John sold the car to Joe Lamey from Middlesborough, taking a Formula Ford car in part exchange, this was quickly sold as John took delivery of a Sports 2000 Lola, having one outing in the car before embarking on a full season of Sports 2000 racing in 1978.

For the 1976 season John Bury ran the car looked after by his own mechanics and finished 2nd to the overall champion in the up to 2 litre class of the BRSCC Modsports Series, taking outright wins at Croft, and Mallory Park, and on 10 occasions finishing in the first two of his class, before the car was returned, to the Ark Racing workshops to be rebuilt by Derek Matthews in readiness for the 1977 season when the Elan was entered along with a new Ark Racing built Elan for Max Payne by Arthur Rough Pressings / Ark Racing. In 1977 in 20 outings with the car John Bury took 10 outright wins, finished 2nd in the 2 litre class of the BARC Championship and third in class in the BRSCC Series behind the joint champions, where with 4 wins he shared equally the 12 races of the series with the joint champions, suffering in both championships following afire in the engine bay at Castle Combe. The repairs necessary to the engine resulted in him missing enough rounds to jeopardize his chances in both series.

Joe Lamey ran the car during 1978 and 1979 achieving reasonable success at his local Croft circuit, but rarely venturing any farther afield, during which time no development work was done on the car, although the engine was rebuilt on one occasion by Phil Markes.

Towards the end of the 1979 season Lamey sold the car to Nicky Ellis of Newcastle, who had been racing an ex Andy Smith Elan in Modsports, but over the winter Nicky Ellis had a new Elan built up by Harry Vincent that would accept a BDA engine for the Donnington GT Series and a twin cam unit for Modsports. It would appear that he only used the car on three or four occasions before selling it to Rhod Stewart a solicitor from Sterling in Scotland who competed in a few sprints and hill climbs before blowing up the engine. He rebuilt both engine and car before competing a in a number of GT races.

ARK RACING

Group Five Elan

Having experienced the joys of long distance racing in 1979, Derek persuaded Max to finance the building of a new Elan to comply with the then Group 5 specification (Explain). This allowed Derek make a radical change to the traditional Elan layout by installing a rear mounted gearbox, and a long prop shaft to take the drive from the engine. Construction work commenced in February 1981, following the traditional Lotus Elan layout of a backbone chassis Derek produced a backbone chassis by riveting together aluminium to form a monocoque chassis, and light alloy deformable side pods. He fabricated a front sub frame to carry the front suspension, steering, fuel pump and VW Golf radiator, which were attached to the chassis by high tensile castings. Safety Devices of Cambridge manufactured a full safety roll cage for the car .In addition, for the first time, aluminium honeycomb sandwich plate material was used to form the front cockpit bulkhead.
The front suspension was via top and bottom fabricated wishbones to cast upright that Derek had designed, and had the casting made locally. The rear suspension incorporated proprietary upright made by March linked to the chassis by top and bottom triangular wishbones which Derek fabricated, Coil springs and Koni shock absorbers were mounted outboard all-round. Brakes were Girling twin pot light alloy calipers with 10.5-inch diameter cast iron ventilated discs, out board at the front and inboard at the rear. Wheels were of the split rim type supplied by Compomotive of Wolverhampton, and were mounted with M&H tyres, 15-inch diameters at the front by 10.5 inches wide and the rear were 15-inch diameter by 12.5 inch wide. The engine was to be a Ford Cosworth BD 2 litre built up by Phil Markes Engine Developments (PMED) of Walsall. With input from Derek on many items, it incorporated Lucas Fuel injection. The twin plate Borg and Beck clutch transmitted power to the Gearbox via the XX inch long prop shaft to a Hewland FGA 5 speed and reverse gear box final drive unit, mounted by a aluminium housing to the rear monocoque.

The body, which followed the Lotus Elan Silhouette, was made of glass fibre in three pieces by Bob Eccles who ran a pattern making business in West Bromwich and had considerable fibreglass experience. Bob was an old friend of Max ' s and had raced Elans in Modsports for some years. The centre section was fitted with a Lotus Elan windscreen (The only genuine 'Elan part on the car) A detachable front section carried an adjustable splitter, and the rear section carried a Group 5 rear wing mounted on side plates. (Elan 77 3 events) The car was first tested at Silverstone and then a number of tests took place at Donnington, where the car developed a major problem with vibrations. The engine had originally been solidly mounted to help reduce the vibrations rigid rubber mounts were used which helped to stop some of the vibrations. The drive shaft also set up vibrations that had repercussions on other areas of the car, the vibrations causing the push rods in the break cylinders to break and leaving Max without brakes on more than one occasion. Eventually after setting up some specialized vibration testing equipment, it was found that a solid diameter propshaft supported in the middle was the answer. This was made in consultation with Mike Endean of Hewland Engineering, and proved satisfactory.

The car eventually made its first appearance in the Plying Tigers 1000 km race at Brands Hatch on 17 September 1981. Max and John Evans completed only 26 laps in unofficial training on Friday, on Saturday before official practice serious engine problems were diagnosed, the spare engine could not be fitted in time to compete in official qualifying during the afternoon. The team was ready to pack up and go home, when the organizers gave permission that they could start from the back of the grid, as long as the drivers completed three qualifying laps during the Sunday morning pre race warm up. On race morning Max woke up with the flu, he did his three laps and looked terrible. Therefore, it was decided that John would run for an hour and then see how Max felt. Towards the end of the hour, the Elan started to vibrate a problem caused by an unbalanced clutch, and as Max was no better. The team decided to stop for the day. Although they went in at the deep end and it was frustrating, they learned a lot. The engine had been replaced by the old 1800cc engine, which Max said in his brief experience that it was really smooth and revving freely. It was not until he drove the car that he realized how flat the new one was at the top end.

Testing was carried out over the winter and a major step was taken on the engine front, when Derek decided to fit the unit with an air starter motor which was becoming exceedingly popular to start Formula One cars. An air motor was purchased from the Desoutter Company and was modified to fit the Ford engine. As the starter could not be powered by an off car source, a small bottle of compressed air had to be carried onboard to hold enough air to provide two or three starts of the engine. This onboard bottle could then be replenished during pit stops.
An entry was obtained for the 6 hour World Endurance Championship race at Silverstone on 16 May. Chris Ashmore a friend of long standing, who had recently made a return to racing after a 14-year break, would join Max.
Unofficial practice on the Friday before the race saw Max and Chris complete 51 laps of the 2.932-mile circuit during which time Chris recorded a lap time of 1 minute 34.1 seconds. Official practice on Saturday was split into two one and a half hour sessions.
Max going out first completed 15 laps with fastest time of 1-36.3 before handing over to Chris who before he had completed the lap had a camshaft break with dire results to the team's best 2.0 litre engine. If they were to race the team ha d no choice but to install their spare engine which was the tried and trusted 1800cc Millington Engine on Weber Carburettors. Sterling work by Derek and the team saw the engine installation start at 10-30 and was completed in time for the afternoon qualifying session at Things did not look good when Chris pulled of at Becketts corner on the first lap out on the afternoon session. The problem was quickly solved and Chris qualified the car for the race. Max started the race 'from 31st position on the grid of 39 starters. For this first season of Group C Lancia took advantage of a loophole in the regulations that allowed open two seater Group 6 cars to race. The intention being to allow existing cars to race for a further season, but Lancia built a lightweight "barchetta" with a turbocharged engine. That would take on the new Porsche 956 Group C cars.

Max settled down into place but after laps when having been lapped by Michele Alboreto in the Lancia's had to break hard to avoid a slow Porsche 924 whereupon Max put the Elan into the back of the Lancia, Alboreto kept going continued until his next pit stop for a new rear body. Max however ha d to stop for a new front body the impact also requiring repairs to the body mounts.
7/5/00

ARK RACING

CEEKAR- BDX

Group c was introduced by FISA on the 1 January 1982. Formally defined as a class for two-seater sports cars built as single examples destined solely for competition. As far as engines were concerned, the rules could not have been simpler. Any petrol engine -of any cylinder capacity, con- figuration or Induction system -may be used, provided that it emanated from a manufacturer who had homologated cars in one of the two PIA production car categories, Group A or Group B. Engine modifications were free.

The practical restrictions on engine performance were provided not by a limit on engine size, but by the emphasis in the rules of fuel efficiency. The maximum amount of fuel tankage permitted was 100 litres, and the number of refuelling stops was limited. In addition, and as safety measure in the pits, the flow petrol through the centrally monitor refuelling systems was fixed at 50 litres per minute, so that most routine pit stops would be of around two minutes duration.

Broadly speaking, FISA has left the constructors to work out their own optimum equation governing power Output/ fuel economy, and the rest of the rules concerning the chassis. The minimum weight was 800 kgs (1746 lbs). The maximum length was 480cms. (189 ins), maximum width 200cms (79 ins), and maximum height 110cms (43 ins). The top of the glass area of the windscreen may be no less than 100-cm (39 ins) from the ground.

There was further restrictive legislation against ground-effects, taking the form of the provision of a solid, flat and continuous surf which must be built in underneath. This had to be an integral part of the body/chassis unit, and no aerodynamic device (any part at the bodywork) may protrude below the level of that surface. This is in fact a total ban on skirts, moveable or otherwise.

A summary of technical regulations for Group C showed it to be a simple formula that was easy to police. To simplify the engine regulations as much as possible, any power unit was acceptable provided it came from a manufacturer who had any cars homologated into Groups A or B. Thus Ford, with a multitude of homologations, could install a Ford Cosworth DFV or DFL engine into a Group C car, although the V -8 had never been installed in a road car, but a specialist engine manufacturer could not. It followed that the design of the engine was entirely free.

The crux of the regulations, though, limited the competitors to five refuelling stops within a 1000-kilometre (621-mile) distance, or to 25 stops at Le Mans. Allowing that cars reached the start line with 100 litres on board, a maximum of 500 Litres could be added, thus limiting consumption to 600 litres, or 132 gallons. Consequently, 600 bhp seemed to be the benchmark for the first year. Following the example of the Automobile Club de I' Guest, on safety grounds, FISA fixed a rate of refuelling at 50 litres per minute, so that stops would necessarily take up to two minutes.

In 1983, FISA introduced the Group "C" Junior class to the World Endurance Championship to encourage less wealthy private teams. The minimum weight for these cars was 700 kg, and fuel capacity was restricted to 55 litres; thus, the Juniors were allowed 330 litres per 1000 kilometres. As in C1, power units had to be 'endorsed' by a recognized manufacturer having homologated cars. After much discussion, Derek Matthews and Max Payne decided to build a new car.

A delay in revising the rules for endurance racing caused something of a problem for the small outfits The new rules for the junior class for Group C cars were not final until November which didn't exactly leave a lot of time for the teams to design and build new machines. "There has been a lot of flack from various quarters about the lack of cars in the championship," said Derek Matthews to the Sports Argus at the time. "They

seem to forget that they are for small teams who don't have the staff and resources to come up with things quickly."

The aptly names CEEKAR was built to race in group C World Sports Car Championship the race series being considered only second in importance to Formula One Grand Prix.

With the team now committed to world championship racing and everything was geared to that By May everything was in bits everywhere and theirs not an awful lot to see originally they were planning to race the Lotus Elan in the Thundersports championship In Britain but that Idea was knocked on the head. "It would have meant re-designing the body so that it was a more lightweight and open car and that would have cost about £2000. More importantly it would have been done at the expense -in terms of time to the new project and all the team were keen to get on with that.

Derek was first faced with the power fuel/consumption dilemma, which was posed by the "Junior" category rules. Eventually choosing to go with the Ford Cosworth BDX unit prepared by Alan Smith engines the 2 litre four-cylinder 16-valve engine, with Lucas fuel injection and ignition that had been used in the Group 5 Elan.

The chassis of the Ceekar was to say the least, unusual. It was made from three main longitudinal structures of aluminium composite, forming backbones to take major loads. Within the central tunnel was located, the fuel tank, of 55 litres capacity Front suspension was by long top and bottom fabricated wishbones to Ark Racing' uprights, with pull operated in-board Koni shock absorber/spring combination. At the rear, the suspension was similar, but an A- frame replaced the lower wishbone. Outboard brakes featured modified Girling calipers and 12' diameter ventilated discs, with Mintex brake pads. Power from the BDX reached the Avon tyres, mounted on Compomotive split-rim wheels, via a twin- plate Borg & Beck clutch and a Hewland FGA 5-speed gearbox. In appearance, the Ceekar was certainly different, and was unlikely to be confused with any other sports-racing car. The cockpit was noticeably further back than on other vehicles and enables the pedal box to be located well behind the front wheels' axle line, giving additional driver protection in case of accident. The body was designed by Derek Matthews, and built for Ark Racing by Crosby GRP of Silverstone; the first time the team had contracted out such a job. The shape was arrived at without the use of a wind tunnel, proving itself quite effective and lead the way in using a front mounted wing later used by many other teams.

This was because there is a Jot to do also with wind tunnel tests expensive in time ant money; the new shell is being built in sections. "We want to make sure we are not too committed in one area with the body so that it be altered easily if necessary," said Derek

Paint scheme was black with orange trim; black chosen simply because the vast majority of other sports-racers are painted in white, so the Ceekar was eye-catchingly different. The car carried sponsorship decals from General Provisions and from Arthur Rough Pressings, who had supported Ark Racing for many years The sponsorship arrangement with Arthur Rough and Sons Ltd one of Britain's leading manufacturers of precision keys and key blanks, provides for more than lust cash. A team as small as

Ark Racing whose full-time staff consists only of Matthews and one full time employee his son Christopher requires support in manpower, and Arthur Rough via their enthusiastic managing director, Jim Evans were always very willing to take over the very necessary chores, from ordering parts to giving pit signals, from attending meetings to making the meals in the absence of regular cook Derek' s wife Christine

The car made is first appearance at Brands Hatch for the 1000 km Endurance race in September 1983, but was not a runner, being presented at the meeting to show FISA that another 'Junior class' car had been built as the class had not taken off as quickly as FISA had hoped.
The car first turned a wheel at Silverstone on the 1st November when Max and Chris Ashmore covered 316 km on a satisfactory first test, others tests took place during the next few weeks.
Before the CEEKAR made its race debut at Silverstone on the May 1984 FISA dropped what was becoming their annual bombshell, Following a visit to Daytona in January, FISA president Jean-Marie Balestre announced in March -a month before the opening World Championship round at Monza- that the 15 per cent

reduction in fuel allowance (to 510 litres) would not, after all, be implemented. C1 car weights would rise by 50 kg to 850 kg immediately. To encourage American participation, all IMSA categories would be admitted to World Championship races, although restricted to the same consumption rules. Maximum car heights would now measure 103 cm (40 in) from the under floor reference plate.
Competitors were no longer limited to five refuelling stops; however, fuel had to be metered, and no more than 500 litres for C1 cars could be added during a 1000 km event.

have unlimited fuel stops to use their 330 litres fuel allowance during a 1000km race. The original rules that were operational when the 'CEEKAR' was built had limited the C2 cars fuel capacity to 55 litres and 5 refuelling stops during the 1000Krn. The CEEKAR had been designed to carry 55 litres of fuel In effect giving larger engined C2 cars 10% extra fuel and the ability to go through on 3 refuelling, where as the original design concept of the 'CEEKAR' with it's 4 cylinder Ford BDX engine of 2 litres capacity was to take advantage of an economical engine that would be able to run through with only 4 stops instead of the 5 for most cars. Therefore, the Ceekar was at a disadvantage before it had turned a wheel in anger.

As a mark of protest against FISA' s decision, which clearly breached the stability rules, the Porsche factory withdrew from Le Mans. In July, FISA 's technical commission ruled that the fuel allocation would be reduced by 15 per cent from 1st January 1985, but that IMSA-style regulations would replace the fuel formula in 1986; some form of air restrictor in the intake system was envisaged. Derek Matthews wrote to Porsche at the time endorsing their stand against FISA.

The change in the rules allowed C2 cars to carry a maximum of 100 litres of fuel, and

At Silverstone wrongly machined wheels caused the cars early retirement and the team was plagued with problems in Germany. A seized clutch bearing in practice, two collisions in the race and failed battery and alternator meant a frustrating race. Only a trouble free last hour saw the CEEKAR come home in 27th place overall out of 42 starters to record its first race finish. It promised much for Brands Hatch, and then it all went wrong again. The car ran with an engine misfire from practically the start, and eventually it gave up the ghost at about one third distance when the crankshaft broke "it was just one of those things. A fatigue problem that we could do nothing about" said Derek Matthew at the time. "It is just niggling things that are upsetting us at the moment. We are shaping up though we have a problem since the rule changes. They leave us about 100 hp down on everyone else. Our only chance is to get a trouble free run because we don't have to worry as much as the others about conserving fuel."
Disaster struck at Spa on the 2nd September when a broken fuel pump casting leaked petrol onto the exhaust pipe, causing the car to catch fire. As the car passed the pit the crew, we astonished to see flame coming from the rear of the car and as Max climbed the hill at eau Rouge the flames increased. The car disappeared behind the trees leaving a worried pit crew, who could only see the black pale of smoke getting higher and higher. Eventually the smoke subsided and a relieved Max arrived back at the pits unharmed from his ordeal, his biggest problem had been that he was in a fiery car and the marshals would not let him out until they had doused the flames. Considerable damage to the rear bodywork, pipes and wiring brought a premature end to the meeting and the season.

The World Championship for Manufacturers was replaced by the World Championship for Teams, clearly enabling factory customers to earn points for themselves and their sponsors and regulations for the World Championship for Drivers were unchanged.

All cars manufactured after 1st January 1985, had to have the driver's pedal axis
Located behind the axis of the front wheels (this had always been the case in C2) and roll cages made of steel. The Porsche factory introduced the 962C to comply with these requirements. Existing cars (e.g., the Porsche 956) had a period of grace expiring on 31 December 1986. Engine manufacture was now totally free and did not need to be assigned to a recognized manufacturer. The Giannini Alba team no longer needed to refer to the manufacturer, and became known as Carma FF (Finotto-Facetti).

The early end to the 1984 season enabled the team to go ahead with various modifications to the car and carry out some much needed testing before the winter set in, the car covering nearly 1000 testing miles at Silverstone and Donnington Park during November.

For the new season Derek Matthew has designed and built a new rear suspension that would enable the car to make better use of the tyres.
Regulation changes for 1985 saw the Fuel allocation for C1 cars reduced to 510 litres, but the C2 allowance remained at 330 litres. Group C2 became the official name; replacing 'junior'.

For their second season of racing the 'CEEKAR ' the ARTHUR ROUGH PRESSINGS/ ARK Racing team benefited from the lessons they learned in 1984. Regular driver Max Payne would share the driving with a near neighbour is in Walsall, David Andrews and for some races Chris Ashmore. With the 'CEEKAR' being built in Willenhall sponsors ARTHUR ROUGH & SONS LTD. being at Wolverhampton, and GENERAL PROVISIONS Limited at Birmingham, the whole project is very much a West Midlands effort. The team planned to compete in all the WEC races except the Le Mans 24 Hour race and the Fuji 1000 Km race.
The first two rounds of the championship took place at the Italian circuits of Mugello and Monza. Victory at Mugello went to the works Porsche of Jacky Ickx and Jochen Mass. who covered the 152 laps of the 5.25 Km (3.3 miles) circuit in * seconds under six hours, while Max Payne Chris Ashmore and David Andrews in the CEEKAR finished 12th overall and 4th in the C2 class after a race interrupted by minor problems. Early in the race the car came into pits with a faulty alternator, which resulted in the battery going flat, at a later stage, necessitating a change of battery while a puncture delayed the car even further. However, confidence was growing as Max set the cars fastest lap on the last lap of the race.

At Monza, victory went to the Kramer entered Porsche driven by Manfred Winkelhock and Mark Surer, while the CEEKAR was delayed early in the race With a broken exhaust manifold. A 39 minute stop to re-weld it dropped the car down the field but a strong trouble free ran afterwards saw the car climb to 17th opinion P overall and 6th in class, when the race was prematurely stopped after 800 Km of the scheduled 1000 Km race when gale force winds blew a large tree across the track.

Chris Ashmore driving the CEEKAR at the time was one of the first cars to encounter the tree, “I did not see it actually crash” said Chris “but when I came round the corner out of the chicane I could see something on track. The other cars which had just overtaken me were able to pull up in time and a marshal came running down the road waving his flag's” “It was the first time at both Italian circuits for all the team'' said Derek who was pleased with the progress they had made and looked forward to the next race at Silverstone at a circuit they knew.

May 12th saw the team make their shortest trip of the year to Silverstone in Northamptonshire for the second round of the team championship and the third round of the driver's series. Max David and Chris sharing the driving. A fuel pick up problem plagued the car throughout this race necessitating 3 extra refueling stops loosing the team at least 4 laps and depriving them of 3rd place in the C2 category which they failed to achieve by 2½ laps, eventually finishing 15th overall and 5th in class. This left the team in 4th position in the C2 team championship.

The 24-Hour race at Le Mans in France has the next championship round and results there still left the team in 4th position in the C2 team category. This position being held following an excellent showing at Hockenheirn in Germany where Max and David came through from 33rd place on the grid out of 36 starters to finish 13th overall, and 4th in the C2 class out of 17 starters, even though they lost 10 minutes when a starter motor had to be changed. Chris missed this and the next race due to business commitments.

The Mosport circuit in Canada bought the team it is best result of the season when Max and David finished in 8th position overall and third in class. Both drivers had spins during the race, which in Max's case damaged the front body section, necessitating an unscheduled pit stop for a replacement, but an otherwise trouble free run made the long trip to Canada worthwhile. This result moved the team into equal second place in the C2

class with the Ecurie Ecosse team though way behind the Spice Engineering team's Tiga-Ford of Gordon Spice and ray Bellm.

The Canadian meeting was overshadowed by the death of German driver Manfred Winklehock and three weeks later sports car racing suffered further tragedy when Steven Bellow was killed in a crash at the Spa circuit in Belgium tile race being stopped after 850 Kms as a mark of respect.

Max Payne, David Andrews and Chris Ashmore were in into place overall and 6th in class when the race was stopped, the CEEKAR having lost 30 minutes in the pits while a damaged wheel bearing was replaced, the problem almost certainly being caused when the car came into contact with a Porsche early in the race. The 6th position in the C2 class, two places behind the Ecosse-Ford dropped the team down to third place in the team series.

The following race at Brands Hatch on the 22nd September was only for the driver's championship, and saw the CEEKAR'S first retirement of the season but it did not affect the overall standing the C2 team championship. From a lowly grid position Chris had moved the car into 10th position overall and third in class, before the crankshaft broke 2 hours into the race just after Max had taken over.

The final team championship race took place at Mount Fuji in Japan, but torrential rain caused the race to be shortened and as the teams who could have overtaken the ARTHUR HOUGH PRESSINGS/ARK RACING team did not score points, it gave the team third place in the championship with the ‘CEEKAR'.

The final race of the (1985 World Endurance Championship race took place at the Shah Alam circuit in Malaysia on the 1st December, and in the 800 Km race Max and David overcame the high heat and humidity to bring the car into high place overall and 4th in class. a faulty starter motor having to be replaced at one of the scheduled pit stop, delaying the car 15 minutes and possibly costing the team 3rd place in class The humidity was so tremendous during the practice sessions all the drivers were toll, able to do four or five laps before calling into the pits to recover. The weather was much better for the race and there were a couple of showers, which helped. But the performance confirmed Max in 5th place of the C2 driver's championship and moved David up to 6th while Chris Ashmore who did not drive in Malaysia retained his 12th place in the Championship. For this race, the car ran with added support from Castrol Malaysia and LUCAS.

ARTHUR HOUGH PRESSING/ARK RACING'S 1985 season had been one of the World Endurance Championships fairy tales. The small team of Walsall's GENTLEMEN DRIVERS' set out to take part, rather than to win with the CEEKAR-FORD and have finished up third in the Group C2 Championship of Teams beaten only by Spice Engineering and Ecurie Ecosse.

Changes to the Championship for 1986 saw the title of the championship changed to the World Championship for Sports-prototypes, and 360-kilometre ‘sprint’ races were introduced the first at Monza, the second at the popular Nurnberg ‘Norisring’ circuit in Germany. FISA and USA had drifted apart, and abandonment of the fuel consumption formula had been shelved. The rate of refuelling was increased to 60 litres per minute for extra safety; the crushable zone in front of the pedal box was increased from 30cm depth to 50 cm.

Unfortunately events have rather overtaken the Ceekar which was now decidedly under powered by the standards of the day, and which was having a tough struggle to keep up with the 3 litre DFV engined cars which made up a large part of C2 racing.

The key to making the Ceekar faster lay with improving sponsorship levels and Ark Racing left no stone unturned in their search for funds. They put together an interesting promotional package under which sponsors had the freedom to choose from three different levels of involvement ranging, front a race-by-race deal up to full season supple. Backing a (successful) racing team is ideal publicity, and it was this sort of company, which Ark hoped to attract.

Unfortunately this sort of support did not materialize and they had been unable to attract enough sponsorship for an all-out attack on the world endurance championship by the start of the season. Jim Evans said “Several sources of finance which we expected to materialize had not come up with the expected sums. Consequently we shall probably only be able to run the car in 4 two events in this country and a couple abroad."

We are continuing to search for more finance and ideally, we would have liked to be able to go out and get hold of a turbo charged engine. Unfortunately, with its sophisticated back up systems the cost is around £50,000 and we can't realistically hope to raise that sort of money, so we shall continue to start from the back of the grid in the most under powered car on the track. Having spent the 3 months while the car was returned from Malaysia designing new parts for the car, including plans for a more powerful engine, Derek plans were thwarted by lack of finance.

Therefore, the car appears at Silverstone for the Kouros 1000km race on Monday 8th May with only revised rear suspension from last season.
The teams other major problem however, lay not in doing well within its own class (they had finished 3rd in the 1985 C2 championship) but was instead caused by the frantic pace adopted by the bigger C1 cars. Jim Evans talking to John Allen for an article in Fast Ford magazine saw this as being the biggest threat to the Ceekar: The top C1 drivers are all going flat out to get pole position he notes and as a result their practice times are far faster than they could hope to achieve in a race, when they have to pay much more attention to fuel consumption requirements. During practice the Lancia and Porsche drivers can turn up the turbo boost to levels they would not dare use in a race. Because of this, they artificially raise the minimum qualifying speed.

Every car and driver is supposed to achieve a practice lap time not more than 130% of the average of the best times for the first three qualifiers. Here at Silverstone that means a qualifying time of 1 min 33.71 seconds is necessary, but the best we have managed is 1 min 33.85”

At Silverstone the team were fortunate to have the Stewards on their side; Clerk of the Course Pierre Aumonier had recommended that the car be allowed to run, on the grounds that -the Ceekar was a well engineered vehicle reliable and from an experienced team, and happily the Stewards agreed with him.

Qualifying efforts were not helped by he fact that Max Payne had accepted a drive in the works Gebhardt sportingly agreeing to the move to allow Ark racing to accept paying drivers into the team. Newcomers Mike Kimpton and 28-year old Frenchman Rudy Thomann both of whom had their first taste of the (reeks on only the Friday before the race, joined Chris Ashmore! During the first timed practice session, on Saturday, the three drivers' times were 1’35.45', 1’37.53' and 1’38.40’ respectively, but Ashmore was of the opinion that, given a clear track, a time of 1’33.0’ would have been attainable.

Following a fraught practice session in which Kimpton and Thomann endeavored to get to terms with a strange car, and Chris Ashmore attempted to qualify the car whilst they all kept out of the way of the hotshots who were fighting for pole positions.

All three drivers felt they could have reduced their lap times by at least 2 seconds if they could have had a clear track. Although slightly outside the 130% qualifying time the stewards allowed the car to start in view of its known previous performance. This decision was substantiated in the race where Chris's fastest lap was within 26% of the fastest 3 laps in the race.

But what of the Ceekar's first 1986, outing, the car was well prepared and had given no problems during practice. The newer drivers settled in easily and showed as their lap titles began' to improve, that they were well able to cope. The start of the race soon proved the truth of Jim Evans's words, and the leading cars Lancia, Jaguar and Porsche circulated some three or four seconds more slowly than in practice. The Ceekar, with Ashmore at the wheel, immediately passed the BMW-powered ALD and then began to move up through the field as potentially faster cars dropped out.

After 30 minutes racing, Chris already had the ‘CEEKAR' - the lightest car in the race at 718kg - up to 22nd place overall out of the 33 starters, and in 6th place in the C2 class out of 13 runners and was running well. An hour later he moved the car up to 20th overall and 5th in class before taking on 65 litres of fuel and handing over to Rudy Thomann, the latter making his World Sports Prototype Championship debut. At 2-17 pm, it was all over for the Ceekar, Thomann bringing the car in to retire with what was at first thought to be a blown cylinder head gasket leaving the unfortunate Mike Kimpton without a drive. But on later examination, it was found that there were cracks in the cylinder block.

In order to avoid the perennial battle to qualify became essential that the Ceekar should gets more power, at the end of 1985 a study was undertaken to consider the feasibility of turbo charging the Ford engine.

It seemed that turbocharging was the only way to go, because the nature of the Ceekar's engine bay precluded the installing of any engine other than a straight-4; the DFV was definitely not going to fit. Derek and Max looked closely into the costs involved, and the finance required is extraordinary: “To become closely involved with an engine builder and to set up a program to develop a turbocharger version of the engine, was likely to cost around £100,000 for a season, and with the level of sponsorship that we had we couldn’t go ahead. It's much too costly for use”. It will be a great pity if the Ceekar does not get the power it deserves and which its chassis could certainly cope with', after all, if an under powered Ceekar can manage third place in the 1985 Championship, think what an extra 100 hp on top of the present 300 hp would allow.

With the number of races in the World Sports Car Championship series being reduced, the team had a long gap to fill between planned 1000 Km (621 miles) races, a British thunderstorms race for all types of two seater sports cars was the opportunity for the team to race the ‘CEEKAR’ which made it's debut in Thundersports racing In the 100 mites race at Donington Park on the 15th June The forty lap race over the new 2.5 Km 'long' Donington Circuit with an obligatory pit stop to change drivers, saw Max sharing the driving of the ‘CEEKAR' with Laurie Hickman from Wolverhampton who was making a comeback to racing after an absence of five years.

Although out paced by the lighter and more powerful open-two seaters sports cars Max and Laurie bought the car into 3rd place in the special class for Group C cars, with their higher minimum weight limit and fully enclosed body finishing 9th overall less than 2 seconds behind the 7th place cars.

When the ‘CEEKAR' was built in 1983 it was fitted with the 4-cylinder Cosworth Ford BDX engine of 2 litre capacity, a reliable package that took the team to 3rd place in the C2 category of the 1985 World Endurance Championship for Teams. For the 1986 season the team had planned to contest all the 1000 Km races of the World Sports Prototype Championship, but after engine problems at Silverstone and following the successful Thundersports race a close inspection of the engines revealed a basic weakness in the cylinder blocks that were currently being used. The original type were no longer available and engines costs per mile have become more than other teams who are winning he C2 Class. In an attempt to make the ‘CEEKAR' more competitive it was decided to cut the possibility of expensive engine failures and after re-analyzing the position of all the current available engines and what they were being asked to do it has been decided to fit a Cosworth Ford DFV engine of 3 litre capacity even though this meant a major rebuild of the rear of the car. The once- expensive DFV/DFL family combining longevity with (in the context of motor racing) low initial cost, has become a highly cost-effective way of competing in international sports car racing.

This engine had for so long had been the mainstay of Formula l and was then being used in Formula 3000 racing. This it was hoped would give the team a realistic chance to build on it's past record. The decision to make a change at this time and miss races rather than during the close season was not taken lightly, as it effects the plans of both sponsors and drivers, but it was felt this would be the most cost effective time for the team to make the change which would require much design and modification to the car that would be carried out in as short a time as possible, The plan was long-term development for the future, and the time lost would only be a short delay in the team's overall plans.

For the second year in succession FISA proposed wide-ranging changes to the regulations which were resisted by OSCAR (The Organization of Sports Racing members that had been formed in 1985 to represent

manufacturers private teams and sponsors. Ark Racing being one of the founder members) Balestre insisted that far-reaching changes, including abandonment of the fuel consumption formula, would take place in 1989.

ARK RACING

CEKAR-DFV

It has been a long, hard winter for Ark Racing, as they went about the major operation of converting the car from BDX to DFV power. Fitting the wide DFV into the back of the Ceekar was not easy. The chassis had been designed to take a narrow four-cylinder engine, so the two side pontoons. which held the BDX had to be cut away to make room for the V8 DFV. Unlike many installations of this engine, it was not used as a fully load- carrying part of the car. Derek Matthew's had not intended the original chassis to accept such an engine so there was no effective way of attaching the DFV to allow it to be used in that way. The engine was prepared by Nicholson-McLaren and defined to Matthew's specification. By giving only around 400bhp, it was under very little stress, and hopefully be driven long and hard without giving any serious problems Also, its low state of tune permitted it to cope easily with the Group C2 fuel restrictions so the drivers could get out onto the track and concentrate on driving, without having to monitor fuel levels.

The whole project took as long as it did because finance had come in only spasmodically, and they had to proceed as and when funds allowed. Anyone who has ever attempted an engine swap will know that fitting into a car any engine other than the one for which it was designed causes a lot of ripples The DFV is longer than the BDX, and so a new spacer had to be made to link the engine to the Ceekar's original Hewland FGA 5-speed gearbox. Even so the car's wheelbase had to be lengthened slightly, although not enough for new bodywork to be required. Viewing the car from the side showed that the rear wheels were off-center in the bodywork cutout but fortunately, not enough for them to foul the wheel arches.

Initial testing took place at Silverstonc on the 23rd June only three weeks before the Brands Hatch race. Despite its newness, both drivers, Max Payne and Lawrie Hickman, turned in times which would have qualified the Ceekar for the grid of the Autoglass 1000km at Silverstone in May. They managed to get in about 40 or 50 laps of testing and were very pleased with the way the car was performing, but disaster stuck when the engine blew up in a big way as Lawrie passed the pit. Investigation showed that the baffling of oil in the tank had allowed the engine to be starved of oil for a fraction of a second enough time to allow the engine to seize and destroy it. A major blow for the money strapped team.

A lot of work and scrapping of the money barrel saw another DFV installed in time for Brands Hatch and turned the scales at 785 kg, 85kg above the minimum weight limit, heavier than it was. Derek Matthews reckons that a considerable reduction could be achieved by fitting new Kevlar bodywork in place of the currently used very thick fiberglass and it would not be long before the weight was down close to the C2 limit.

Max Payne, who had driven DFV-engined cars before, was very happy with the rejuvenated Ceekar despite it having a few teething problems: “We don't have a rev counter, so we can't make full use of the engine. We do not know what the car sounds like at the various revs whereas with the other one we could drive that without a rev counter all day. However, it seems a lot easier to drive. You're not working on the ragged edge all the time”. The rev counter gave trouble throughout practice, and no one knew why; it was a new unit but even when a replacement was fitted, that worked no better, so it was thought that the installation must have been causing the tacho to pick up some interference somewhere.

There were two really awkward problems in practice for the race at Brands One was a persistent misfire, which was eventually cured (although nobody was quite-sure how) but it did require the attention of engine-man John Nicholson himself to do it. The second concerned the fuel pump, which twice broke due to excessive vibration (the DFV family is something of a boneshaker).
A switch to a Bosch pump solved that, and when practice finished both drivers had qualified with ease the best time being italic Hickman's 1m 33.3 sec's in the Saturday morning session.

The race, alas, proved to be something of a disappointment, and the Ceekar complete with FAST FORD decals, lasted only 10 laps before it was pulled out with failure of one of the front suspension wishbones. It was not immediately clear whether the part, which failed, was from an earlier, used batch, or was a new one. However, if a car has a weak point Brands Hatch will find it although Matthews was not too happy about such a failure occurring during a race.

Ken Wells reporting in the Fast Ford magazine wrote “The team suffered great disappointment at being sidelined at Brands Hatch then withdrawn from Nurburgring because of engine problems during race days morning warm-up session. Things could only get better . . .It was mid-September and that classic Belgian circuit of Spa Francorchamps situated high amidst rolling hills and dense forests of the Ardennes, this remodeled track still retaining the aura and challenge of yore - unlike a castrated 'Ring - by keeping sections like that flat-out sweep through L'Eau Rouge, yet avoiding the inherent dangers of its predecessor. A great place to hold a motor race.”
At scrutinizing the Ceekar weighed in a full 10 per over the 700 kgs class minimum; continued use of thick fiberglass bodywork contributing half of this sizeable handicap with lightweight Kevlar panels still something for the future. Quite naturally such difficulties impair the power-to-weight ratio thereby not assisting progress beyond the penultimate row of a 32-car grid a time of 2m 32.45s was set by Chris Ashmore who had joined regular pairing of Max Payne and Lawrie Hickman for driving duties. Team boss Matthews was unperturbed by their position, decrying the long term up effects of a lowly start position at 1000 km events and defending a lack of special qualifying tyres by counsel- “We are not going to find 10 seconds by using them so why spend £200 perhaps only to move up one place for the start. Some teams spend it only to move diagonally across the grid”. When you put it like that...

The time had been set during Saturday morning. Moreover, a series of accidents to other contenders caused interruption to the later period in which the Ceekar concentrated on full tank tests. They did not venture out after the stoppages. Thereby having plenty of time to muse that practice and qualifying had been remarkably trouble free for them the spectra of mechanical doom not only deeming to visit their pit.
Nor did they partake of Sunday morning's untimed session, Matthews' laconic wit to the fore when suggesting his drivers preferred to: “Have a bit of a lie-in followed by eggs ‘n’ bacon rather than tempt a repetition of the German gremlins.”

Hickman, a newcomer to Spa, would undertake the first stint. It went well maintaining a position within the top two dozen as racing settled down under increasingly threatening skies. The area is notorious for changeable weather patterns. Lawrie came in after 63 minutes sterling work to allow Chris Ashmore aboard. Onwards they went, Max Payne got his opportunity along with four new Avons after two hours. The Ceekar was established as a
top 20 runners; it's Ford Cosworth V8 performing marvelously as were all other components.

Then it started to rain and with it came problems of a decidedly unpleasant nature, a sticking throttle; in addition, inoperative windscreen wiper as the heavens opened and all hell broke loose. Hickman commented after his second Sunday afternoon drives that when being lapped by the Jags and Porsches: It was like driving into a curtain. Naturally, a situation could not be allowed to continue. Valuable minutes were lost rectifying both faults only for the rain eventually to ease as the race entered its final phase.

By now if Spa had a public scoreboard it would have shown the ‘black machine' in 17th place overall/seventh in class, yet their position was coming under increasing attack from ALD 177 who had recovered strongly from an early nose-damaging spin. Similar dramas befell the Ceekar when punting a misalign competitor three feet into the air after it had wandered into Ashmores path but they finally beat the Frenchies home by 0.31 seconds after a full six hours racing! All's well that ends well, so for Matthews & Co their pleasure was almost tangible. Each member of this happy band was unable to conceal the pleasure of their own personal victory and able to look to the future with renewed confidence and an extended WSPC program. Derek commented: 'There is no substitute for finishing races. Now the main thing is to capitalize on what we have learnt.''

But that is tomorrow, today being savored with a rare glass of champagne. The final words belong to that lovely lady who is Mrs Matthews: “We are very pleased. This is how it should be. They won't be able to stop us now”.

The teams plans for the 1988 season was an early year trip to Spain for the Jerez 600km race on the with March and the 360 km race at Jarama a week later. This was to be a MAXimum effort by the team with MAX Payne being joined for the races by MAX Cohen - Olivar the Moroccan sports car driver. This would be the team's first trip to the Jerez circuit nestling in the hills and sherry vinyards of Andalucia.

Jim Evans 5/5/2000