

60th ANNIVERSARY

SAMCA

SOUTH AFRICAN MODEL CAR ASSOCIATION

60th ANNIVERSARY

SAMCA

SOUTH AFRICAN MODEL CAR ASSOCIATION

Port Elizabeth Model Racing Car Club, Gqeberha

23-26 September 2026

CONTENTS

Memories of Joining the Aberaz Slot Racing Club at Age 12 ..... **02**

Introduction **04**

A Brief History of Slot Car Racing **06**

The Rise, the Fall & the Re-emergence of Slot Car Racing **08**

A Brief History of Slot Car Racing in South Africa **12**

The South African Model Car Association (SAMCA) **14**

South African Champions **16**

Champions, Legends & Rising Stars **18**

The Next Generation **24**

The Evolution of Slot Cars **26**

SAMCA Tracks: Past & Present **30**

Special Feature: Ross Brawn OBE – Slot Racer and Motorsport Engineer **34**

SAMCA Affiliated Clubs **36**

MEMORIES

OF JOINING THE ABERAZ SLOT RACING CLUB *at age 12*

In 1965, when I was 12, I joined Aberaz Slot Racing Club in Port Elizabeth. Based in Zareba Street, Richmond Hill, the club took its name from “Zareba” spelt backwards.

Most members raced Scalextric D-Type Jaguars. I hand-painted mine in an ugly shade of blue house paint – the only paint I could find at home. Model car paint was a luxury then and, judging by the price of Tamiya polycarbonate paint today, it still is.

Senior members who could afford them raced Cox Cheetahs. Some wound their own armatures, although most burnt out halfway through a race – to everyone’s amusement and usually followed by plenty of advice about what to do, and what not to do. I raced only occasionally on Saturdays because other activities kept me busy.

Late in 1965, the club moved to the first floor of a building in Military Road, in Port Elizabeth’s old CBD. The track was raised and lowered using block and tackle. Entry was through the red door on the right and up a very narrow staircase. Even today, the smell of wintergreen takes me straight back to that dim room, lit only by a few incandescent bulbs hanging from the ceiling.

The first SAMCA-sanctioned Grand Prix began on Wednesday, 6 April 1966, with practice and racing continuing until Monday, 11 April. As I vaguely recall, the classes were Grand Prix and Sports/GT. I did not compete, but I remember the lane stickers: white paper dots marked with a coloured X to identify each lane. Most entrants had painted their cars in team colours.

Soon after my 13th birthday in 1966, I combined birthday money with earnings from singing at weddings in the St Cuthbert’s Church Choir – yes, folks, I could sing in tune – to buy a Tokyo Plamo BMW 507 from Treasure Island.

The BMW handled terribly, so I weighed it down with two penlight batteries just to keep it on the track. My highlight of 1966 was racing a Cox Cheetah in a club endurance race with a senior member who thought I showed promise – and was brave enough to invite me onto his team.

By the end of 1966, I had begun playing in a band with school friends, and slot cars gradually faded into the background. We called ourselves The Transparent Reflections.

In March 1975, I was sitting in my burnt-orange 1974 Mazda at the Fun-o-Rama Roadhouse in Boksburg when I noticed an odd little building nearby. For reasons I cannot explain, I walked over, peered through a flaking window and saw a four-lane slot car track. The place was packed with people enjoying the racing. There I met Mike Seary, Heinz Schafferer, Ray “Dogs” Browne and many other great people. About a week later, Heinz cobbled together a brass 1/32-scale slot car for me. Armed with the ubiquitous blue MRRC controller, I was racing again – although I often came off.

Sixty years later, I am still racing slot cars. My greatest joy is watching youngsters discover the hobby and hoping that some will continue into adulthood, eventually introducing it to their own children.

Colin Lotz, Chairman, Port Elizabeth Model Racing Car Club



ABOVE: Scalextric D-Type Jaguar



ABOVE: Cox Cheetah – the car every youngster dreamed of in the early to late 1960s.



ABOVE: Programme for the first SAMCA Grand Prix, held at the Aberaz club in Port Elizabeth in 1966.



Tokyo Plamo BMW 507



Aberaz club in Military Road, Port Elizabeth. Entry was through the red door on the right and up a narrow staircase to the first floor.

INTRODUCTION



It was 1966. England won the FIFA World Cup, "California Dreamin'" by The Mamas and the Papas topped the charts, Ford achieved a historic 1-2-3 sweep of the Le Mans 24 Hours, Graham Hill won the Indianapolis 500, and Jack Brabham claimed the Formula One World Championship. In South Africa, the first SAMCA Grand Prix was held.

Founded in Durban in 1963, Ecurie Elite Model Racing Car Club (EEMRCC) hosted major slot car events even before SAMCA was formed. As interest in the hobby grew rapidly and new clubs appeared across the country, clubs in the Eastern Cape and Natal formed the South African Model Car Association (SAMCA) in 1966, to standardise rules, regulate competition and sanction national championship racing.

The first SAMCA-sanctioned Grand Prix was held in 1966 at the Aberaz Slot Racing Club in Port Elizabeth, with the second round hosted by Ecurie Elite Model Racing Car Club in Durban. Since then, SAMCA has organised national championship Grand Prix racing annually.

The first South African Champion was Andre Thomas of Ecurie Elite Model Racing Car Club, who won the Sports & GT Championship in 1966 and 1967, as well as the Saloon Car Championship in 1967. Mike Baxter, the then SAMCA Chairman, from Durban's Equipe Veloce Model Racing Car Club, won the 1966 Grand Prix Class.

Over the past 60 years, more than 40 slot car racing clubs have been affiliated with SAMCA, and just over 1,000 individuals have competed in more than 240 SAMCA Grands Prix.

"The first South African Champion was Andre Thomas of Ecurie Elite Model Racing Car Club, who won the Sports & GT Championship in 1966 and 1967, as well as the Saloon Car Championship in 1967."

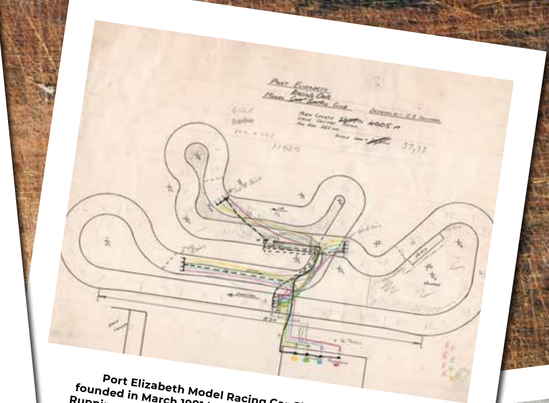
The Port Elizabeth Model Racing Car Club (PEMRCC), host of the SAMCA 60th Anniversary Grand Prix, was founded in March 1991 by Syd Saunders, Colin Lotz and Johan Rupping, who also built the club's first track. Designed by Syd, the four-lane track hosted the club's first race in July 1992. PEMRCC hosted its first SAMCA Grand Prix in 1998, which was won by Hennie Petzer from East London.

Throughout its history, PEMRCC has earned a reputation as one of SAMCA's most resilient clubs. Having relocated more often than any other affiliated club, its members have repeatedly overcome challenges to keep slot car racing alive in Port Elizabeth. In 2006, the club's original four-lane track was replaced by the current six-lane circuit, which closely follows the original layout.

PEMRCC stalwart and former SAMCA Chairman Colin Lotz began racing at the Aberaz Slot Racing Club in 1966, creating a unique link between SAMCA's first Grand Prix and its 60th Anniversary celebrations.



Ecurie Elite Model Racing Car Club, Durban, in 1963, with Don Ebsworth in race control.



Port Elizabeth Model Racing Car Club (PEMRCC) was founded in March 1991 by Syd Saunders, Colin Lotz and Johan Rupping, who also built the club's first track. Designed by Syd, the four-lane track hosted the club's first race in July 1992.



The original PEMRCC 4-lane track.



The current PEMRCC 6-lane track, built in 2006. Note the similarity to the 4-lane track.

A brief HISTORY OF SLOT CAR RACING

Although electric model cars date back to the turn of the 20th century, slot car racing is generally accepted as a direct descendant of rail racing, which was popular from the mid- to late 1950s. According to Richard Dempewolf's *Table-Top Car Racing*, the first electric model racing cars began whizzing around table-top tracks in England shortly after World War II.

D.J. Laidlaw-Dickson, editor of *Model Maker* magazine, credited Geoffrey Deason as the founder of rail racing. In a 1948 article for *Model Maker*, Deason suggested racing battery-powered cars on small indoor tracks guided by wooden rails.

Late in 1954, a reader wrote to *Model Maker* saying he had fitted an electric motor to a wind-up toy car that ran on a slightly raised rail, from which it picked up current. A second rail, flush with the track surface, supplied the negative current. Brass shim-stock served as pick-ups beneath the chassis, and a rheostat controlled the speed. A single shoe-type guide attached to the chassis followed the raised rail, while still allowing the car to slide – or even leave the track – if driven too quickly.

Using HO-scale train motors and 12-volt car batteries for track power, members of Britain's Southport Model Engineering Society refined the idea and built a six-lane, 60-foot track with an HO-scale train-rail guide. That same year, the club held its first Grand Prix, attracting about 30 cars. The event was reported in detail in *Model Maker*, helping table-top car racing take off in England. Early in 1955, a group in Kalamazoo, Michigan, formed the Model Automobile Racing Association (MARA) and built a track and cars to "Southport Standards".

In 1956, MARA mailed four cars to Southport to be raced by proxy in the Southport Grand Prix. Their cars finished second and fourth, making it the first officially recorded proxy race.

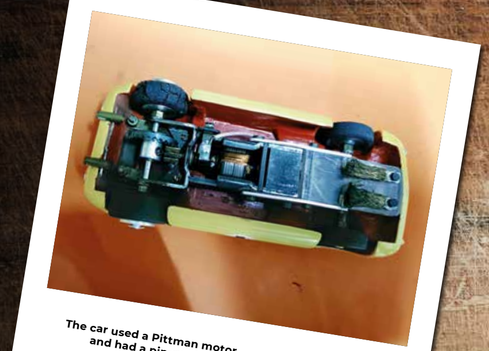


LEFT: In 1955, a group in Kalamazoo, Michigan, formed the Model Automobile Racing Association (MARA) and built a rail racing track and cars to "Southport Standards"

ABOVE: 1955 Model Maker magazine



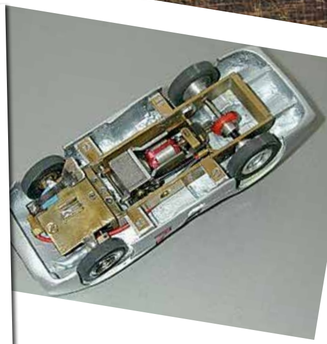
ABOVE: 1935 Alfa Romeo 8C rail racing car, with a fibreglass body.



The car used a Pittman motor and had a pin-guide.

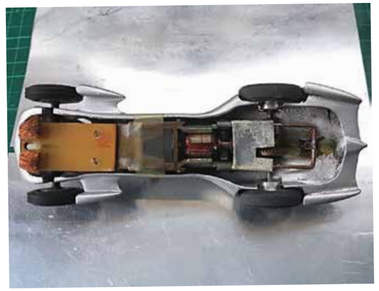


An original 1954 Mercedes-Benz W 196 R Stromlinienwagen rail racing car with a balsa wood body, which has been fully restored.

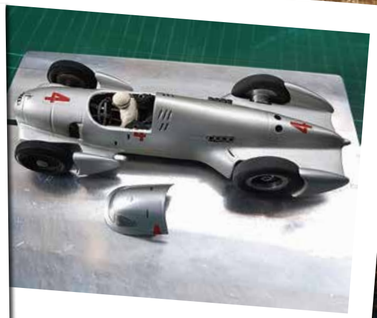




Andre Thomas' 1966 SA Championship-winning car. The Lola GT body was hand-carved from balsa wood by Alan Swanby.



Fibreglass 1930 Auto Union Streamliner



THE RISE, THE FALL & THE RE-EMERGENCE OF SLOT CAR RACING

Slot car home racing systems became popular in 1957, when a small British company, Minimodels Ltd, unveiled a commercially available slot car home racing set at the Harrogate Toy Fair, under the product name Scalextric (Scalex-electric). With a recessed slot and electrical contact strips on either side of the slot, the system looked far more realistic than the protruding rails of the rail racing tracks. Orders flooded in, outstripping the company's production capacity so much that in November 1958 Minimodels sold out to the Triang group, a company with much larger resources. Triang quickly introduced many improvements. Variable speed hand throttles replaced the original 'dapper' type controller, and the track was changed from rubber to polyethylene.

Scalextric proved immensely successful both in Britain and abroad, and other manufacturers soon climbed on the bandwagon. Within a short space of time, British companies such as VIP, Wrenn, SRM and Airfix introduced their own slot racing systems, and in America manufacturers such as Aurora, Strombecker, A.C. Gilbert and Eldon produced theirs. In Europe, manufacturers included Miniamil, Circuit 24 and Jouef in France, and Faller, Fleischman and Carrera in Germany.

By 1963/64, slot car racing had become so popular that it fast became big business. You had Jim Clark appearing in advertisements for Scalextric, while Jouef had film star Alain Delon and Aurora featured Stirling Moss. During this time, Aurora sold some two million slot racing sets and over 12 million cars.

The hobby side of the industry was also booming, with the first national association, the ECRA (Electric Car Racing Association), being formed in Britain in 1961. At the end of that year, Revell came out with the first mass-produced,





BELOW LEFT: January 1957, Scalextric was introduced at the the Harrogate Toy Trade Fair.

BELOW: November 1958, Minimodels Ltd. was purchased by Lines Bros (Tri-ang)

"The race was on, and luxurious slot car racing emporiums were established, featuring up to seven professionally manufactured 8-lane tracks, some over 100 metres (300 ft) long, with 80-degree banks at the end of 17-metre (50 ft) straights."

low-price, high-quality slot racing car kit, soon followed by Monogram, K&B, MPC, AMT, Cox, Atlas and others. The Japanese toy and hobby manufacturers were quick to follow, with companies such as Tamiya, Tokyo Plamo, Marusan, etc. producing cars and sets.

The popularity of the hobby was fuelled by the amazing growth of commercial raceway centres, particularly in the USA. The first ones probably sprung up around 1961 (in California, Texas or Chicago, depending on who tells the story). The race was on, and luxurious slot car racing emporiums were established, featuring up to seven professionally manufactured 8-lane tracks, some over 100 metres (300 ft) long, with 80-degree banks at the end of 17-metre (50 ft) straights. By 1966, there were some 3,000 commercial raceways in the United States and over 200 in Europe. They sold the latest cars, controllers and parts to hordes of enthusiasts, resulting in the slot racing industry generating annual sales of more than $500 million for three years in a row.

In addition to the established hobby brands, specialised companies like Russkit, Dynamic, Classic, Champion and Mura emerged to ride the crest of the wave, giving rise to professional slot car racing. In the United States, the American Model Car Racing Congress announced a contest with $100,000 in prizes, and Strombecker organised a nationwide contest for young drivers, with the grand prize being a trip to Paris. In Paris, meanwhile,



1964 Scalextric advertisement featuring Jim Clark.

a major competition at the Palais Berlitz racing centre in 1966 attracted an incredible 10,240 drivers, all vying for the first prize of a real Matra sports car.

Slot racing at commercial centres reached its pinnacle in 1966. Unfortunately, as early as 1967, the bubble began to burst. It had become a veritable arms race, with the cars becoming increasingly sophisticated and expensive. Manufacturers formed their own factory teams, finding the best young drivers and sponsoring them in the big races. An over-the-counter car was no longer competitive, since you now had to rewind the motor, design and build your own chassis using brass tube and piano wire, and spend hours tuning and testing.

As a result of the escalating cost and competition, it was becoming impossible to compete with the pros and youngsters deserted the commercial raceways in droves. By 1969, there were only 50 commercial raceways left in the United States.

Fortunately, many slot racing clubs around the world survived, but the halcyon days of the mid-1960s had slipped into oblivion.

> *"Fortunately, many slot racing clubs around the world survived, but the halcyon days of the mid-1960s had slipped into oblivion."*



RIGHT: AMF advertisement for commercial tracks.



1982 Slot Car World Championships, Uden, Netherlands


564
MODEL CARS
EMOTT CRUISES HOME AT TOTTENHAM OPEN Sept. 7th
a Model Cars report
UNTIL the appearance on these shores of quiet spoken, shoulders, Bob Emott of Ward believed rated: just let them come over here and we'll show them, etc.!" We don't believe them any more and Meeting ever on 7th September won't either.
Bob tore a field of 148 entries into little pieces with his wonderfully controlled and calm 22 laps and 13 parts in 7 minutes with, let it be emphasised, the without displacing that Bob had left off on the the final with Mark Moser on 22-6. Barry Magee 21 1/4) and Steven Hall with a 21'19 making the by Tottenham's Mike Wootton, Rein Cox, John Eldred and assorted helpers to whom all credit must go and sponsored by Champion of Europe, G.F. Models Mike Tango (Nutley Raceways, U.S.A.), Tottenham Model Raceways, Bob Emott (who supplied one of Cars Magazine.
The Semi-final, which included Brian Heath, Eddie Blackwell, Mickey Graves, Bill Clark, Vic Elms, Ronnie Spencer Junior, Ronnie Spencer Senior and
Heading photos show Bob Emott's beautifully engineered chassis from outside and inside. Bob has used a Mabuchi motor in Mayer's Fly body and finished car at the rear pivots of front pressed for bottom, 1/4 inch from front axle on Scalextric. As you can see, Bob has a very neat and tidy set up and the sort of thing we would like to see all the standard of car Sarah was high.
At top, Mark Moser's neat trans with Mura and typical cutout drop arm and wire. Next down is Ronnie Spencer Junior's frame. At right, Barry Magee's Fly no. 5 and third down from there, Kerry Magee's Fly on Eddie Brack chassis. Bottom left, Mark's conventional drop arm chassis, and next down, Vic Elms' similar chassis.
Roland Leonard produced some fine, fast racing with Ronnie Spencer Junior dominating each of the four segments, Vic Elms in second, Brian Heath in third and Bill Clark fourth. These four went up into what proved to be the most exciting final we have ever seen; only marred by Bob Emott's almost casual dominance; as he he did, indeed, still have something in hand that he hadn't had to draw on. Mark Moser did well to keep in touch with the flying Emott who made only two mistakes, but the contest was that Mark was right on the limit while Bob was 'cruisin'. The other
continued on page 569
TOTTENHAM 1:24th OPEN TECH CHANT SEPTEMBER 7th 1969
Driver | Motor/Wind | Body | F.wheels/ R.wheels/ Chassis tyres R'spec | Gears | Guide/Braids/Controller
Bob Emott (Team Champion G.B.) | Bob Klein 25 wire arm | Champion | Champion R.Y.M. | Cox 7.34 | Nutley Guide Cobra braids | Gorski Micro 7½ ohms
Mark Moser (Team Mura) | Custom B series | Mura Bodies 27 | Nutley parts | Cox 7.34 | Nutley Guide Cobra braids | Gorski Micro 7½ ohms
Vic Elms | Champion case, magnets, etc. | Mura 27/28 | Flat and round wire plumber | Taylor 10:52 Associated | Lee Ruskit 1 ohm
Ronnie Spencer (Junior) | Custom B series | Dynamic | Sheet steel drop arm plumber | Taylor 11.52 Simco | Lee Ohm 5 ohm
Brian Heath | Custom B Mura, 27/28 | Lesan MBA | John Thomas plumber | Taylor 10:52 Simco | Ferma Russ kit 1½ ohms
Barry Magee (Team Mura) | Mura Bodies Production B Mura, Mura 24 Cobra arm | Waters MBA | Drop arm plumber | Taylor 11.52 Simco | Taylor 11:52 Assoc. Guide Cobra braids | Champion Orange | Champion 7.32 | Champion modified | Champion modified | Champion modified

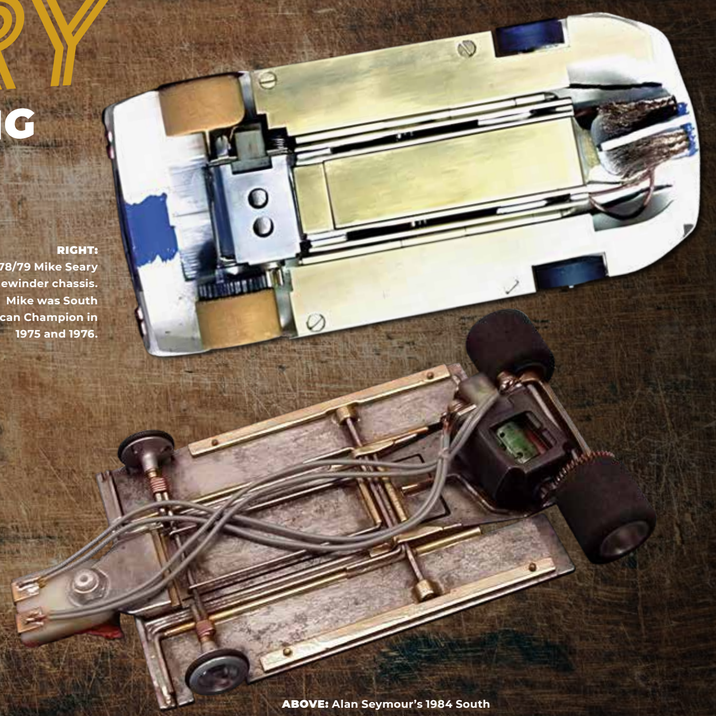
A brief HISTORY OF SLOT CAR RACING IN SOUTH AFRICA

Slot racing in South Africa became popular with the introduction of Scalextric and in the early 1960s, large numbers of 'Scalextric' clubs sprang up all over the country, with many leisure and sports clubs having track layouts.

The hobby took off in a big way when commercial raceways opened in the mid-1960s. Pix Raceways was in Johannesburg, but the most impressive of all was Miniways, located on Cape Town's foreshore. Miniways had three huge eight-lane AMF tracks: a 155' Blue King, a 110' Orange Monarch and a 90' Black Prince. There was also a second raceway in Cape Town, located in Sea Point. The raceways sold vast inventories of cars, controllers and spare parts. Around 1968, by which time the worldwide slot racing boom was already over, the raceways closed.

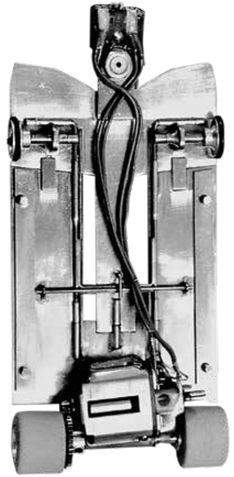
1/32-scale clubs, many with wooden routed tracks, were however the mainstay of slot racing in South Africa. Cars were mainly scratch-built by enthusiasts building their own chassis from brass and steel rod and tuning their own motors.

"The hobby took off in a big way when commercial raceways opened in the mid-1960s. "

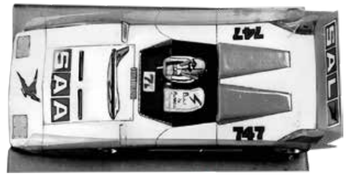


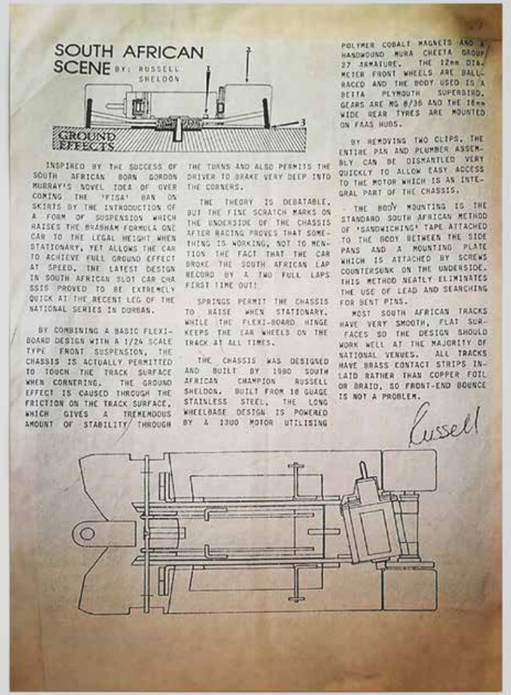
RIGHT: 1978/79 Mike Seary sidewinder chassis. Mike was South African Champion in 1975 and 1976.

ABOVE: Alan Seymour's 1984 South African Championship-winning car.



At the 1979 EEMRCC Grand Prix, Russell Sheldon stunned the field with his long-wheelbase Plymouth Superbird, breaking the lap record by over two laps. The idea was to maximise downforce by using long side-dams, so a long body was the answer. He easily won the race.





SOUTH AFRICAN SCENE BY: RUSSELL SHELDON

GROUND EFFECTS

INSPIRED BY THE SUCCESS OF SOUTH AFRICAN BORN GORDON MURRAY'S NOVEL IDEA OF OVER COMING THE 'FIA' BAN ON SKIRTS BY THE INTRODUCTION OF A FORM OF SUSPENSION WHICH RAISES THE BRABHAM FORMULA ONE CAR TO THE LEGAL HEIGHT WHEN STATIONARY, YET ALLOWS THE CAR TO ACHIEVE FULL GROUND EFFECT AT SPEED, THE LATEST DESIGN IN SOUTH AFRICAN SLOT CAR CHASSIS PROVED TO BE EXTREMELY QUICK AT THE RECENT LEG OF THE NATIONAL SERIES IN DURBAN.

BY COMBINING A BASIC FLEXI-BOARD DESIGN WITH A 1/24 SCALE TYPE FRONT SUSPENSION, THE CHASSIS IS ACTUALLY PERMITTED TO TOUCH THE TRACK SURFACE WHEN CORNERING. THE GROUND EFFECT IS CAUSED THROUGH THE FRICTION ON THE TRACK SURFACE, WHICH GIVES A TREMENDOUS AMOUNT OF STABILITY THROUGH THE TURNS AND ALSO PERMITS THE DRIVER TO BRAKE VERY DEEP INTO THE CORNERS.

THE THEORY IS DEBATABLE, BUT THE FINE SCRATCH MARKS ON THE UNDERSIDE OF THE CHASSIS AFTER RACING PROVES THAT SOMETHING IS WORKING, NOT TO MENTION THE FACT THAT THE CAR BROKE THE SOUTH AFRICAN LAP RECORD BY A TWO FULL LAPS FIRST TIME OUT!

SPRINGS PERMIT THE CHASSIS TO RAISE WHEN STATIONARY, WHILE THE FLEXI-BOARD HINGE KEEPS THE CAR WHEELS ON THE TRACK AT ALL TIMES.

THE CHASSIS WAS DESIGNED AND BUILT BY 1980 SOUTH AFRICAN CHAMPION RUSSELL SHELDON. BUILT FROM 18 GUAGE STAINLESS STEEL, THE LONG WHEELBASE DESIGN IS POWERED BY A 1300 MOTOR UTILISING POLYMER COBALT MAGNETS AND A HANDWOUND MURA CHEETA GROUP 27 ARMATURE. THE 32mm DIAMETER FRONT WHEELS ARE BALL-RACED AND THE BODY USED IS A BEITA PLYMOUTH SUPERBIRD. GEARS ARE MG 8/36 AND THE 16mm WIDE REAR TYRES ARE MOUNTED ON FASS HUBS.

BY REMOVING TWO CLIPS, THE ENTIRE PAN AND PLUMBER ASSEMBLY CAN BE DISMANTLED VERY QUICKLY TO ALLOW EASY ACCESS TO THE MOTOR WHICH IS AN INTEGRAL PART OF THE CHASSIS.

THE BODY MOUNTING IS THE STANDARD SOUTH AFRICAN METHOD OF 'SANDWICHING' TAPE ATTACHED TO THE BODY BETWEEN THE SIDE PANS AND A MOUNTING PLATE WHICH IS ATTACHED BY SCREWS COUNTERSUNK ON THE UNDERSIDE. THIS METHOD NEATLY ELIMINATES THE USE OF LEAD AND SEARCHING FOR BENT PINS.

MOST SOUTH AFRICAN TRACKS HAVE VERY SMOOTH, FLAT SURFACES SO THE DESIGN SHOULD WORK WELL AT THE MAJORITY OF NATIONAL VENUES. ALL TRACKS HAVE BRASS CONTACT STRIPS INLAID RATHER THAN COPPER FOIL OR BRAID, SO FRONT-END BOUNCE IS NOT A PROBLEM.

Russell

THE SOUTH AFRICAN MODEL CAR ASSOCIATION – SAMCA

When SAMCA introduced national championship racing in 1966, two car classes were contested – Grand Prix and Sports/GT. The following year, a Saloon car class was added. These classes continued until 1970 when, to improve declining attendance, one class was dropped and a driver grading system introduced. Drivers of similar ability and experience competed in four graded classes: A, B, C and D.

The success of the driver grading system led to a further change in 1971, with another car class being removed, leaving only an Open Class in which any car could be entered provided that the chassis and wheels could not be seen from above. Drivers competed for the overall Open Class honours while also racing within their respective driver grades.

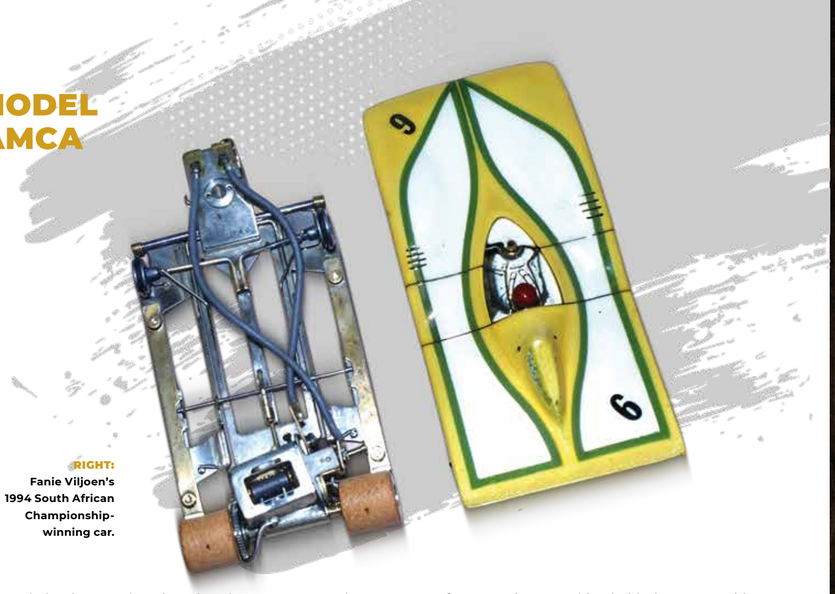
Under this format, the South African Champion was determined by the highest points scorer in the Open Class, while Class Champion titles were awarded to the winners of each of the driver graded classes. At the end of 1979, the D Class was discontinued, but the three-grade system remained in place until the mid-1990s and proved highly successful, with Grand Prix entries of up to 30 competitors being common.

A Production Class was introduced in 1993, initially restricted to C Class drivers. In 1998, additional car classes were introduced and opened to all competitors. Up until 2020, SAMCA raced between four and six different car classes. Driver graded racing was discontinued in the early 2000s to accommodate the expanded race programme, although the grading structure remained for results purposes.

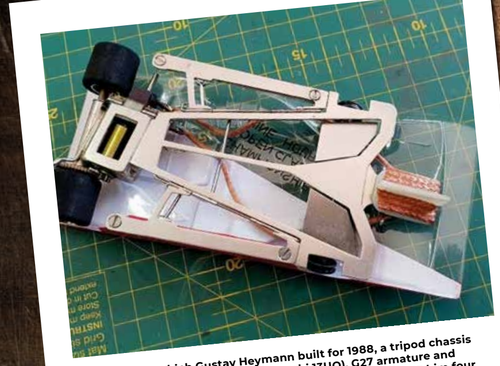
For the 2021 season, the number of car classes was reduced to just two – GT12 and Production, both raced in 1/24-scale and representing the fastest and most technically advanced slot cars raced in South Africa. Driver graded racing was also reintroduced. One reason was that, as the cars became more advanced, the cost of competing increased, making it difficult for many competitors to maintain multiple cars across several classes. In addition, the same group of drivers consistently occupied the top places. The reintroduction of driver grading allowed competitors to race against others of similar ability and experience, resulting in closer, more enjoyable racing while providing a clear pathway for drivers to progress through the grading ranks.

A new era began in 2025 when SAMCA introduced brushless-powered racing. The new technology reduced maintenance, improved reliability and lowered the barrier to entry for competitors. Combined with close, competitive racing and renewed interest from both existing and former racers, the introduction of brushless racing contributed to a significant increase in participation at national events, with attendance returning to levels not seen for many years.

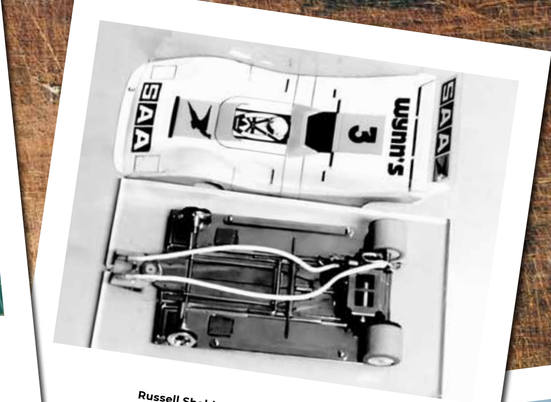
Today, SAMCA continues to promote competitive slot car racing throughout South Africa by fostering sportsmanship, encouraging innovation and welcoming competitors of all ages and experience levels. With the introduction of brushless racing and renewed growth in participation, the future of organised slot car racing in South Africa looks brighter than it has in many years.



RIGHT:
Fanie Viljoen's 1994 South African Championship-winning car.



The car which Gustav Heymann built for 1988, a tripod chassis using a "Peanut" can (Mabuchi 13UO), G27 armature and polymer cobalt magnets, proved significant, bringing him four SA Championships between 1988 and 1991, notching up ten wins and two Nine Hour Endurance Race victories.



Russell Sheldon's joint 1980 South African Championship winning car.



Heinz Schafferer chassis. Heinz was widely considered as the best chassis builder in South Africa. He finished runner-up in the South African Championship in 1975 and 1976.



Dennis Samson built this 'strap' motor anglewinder in 1985.



SOUTH AFRICAN CHAMPIONS

WINNERS OF 1/32 SPORTS, SALOON AND GRAND PRIX CLASSES 1966 – 1970

YEAR	SPORTS	SALOON	GRAND PRIX
1966	Andre Thomas	-	Mike Baxter
1967	Andre Thomas	Andre Thomas	Jimmy Cramer
1968	Chris Rodd	Chris Rodd	Hennie Prinsloo
1969	Mike Brennan	Chris Rodd	Alan Varty
1970	Andy Catterall	-	Alan Varty

TOP 3 IN OPEN CLASS 1971 – 2025

YEAR	1st	2nd	3rd
1971	Karl Koegler	Noel Pietersen	Jaapie Taljaard
1972	Jaapie Taljaard / Theuns Duminy	-	Eddie Nagel
1973	Noel Pietersen	Theuns Duminy	Chris Rodd
1974	Leon Kay	Noel Pietersen	Ron Coulson
1975	Mike Seary	Heinz Schafferer	Noel Pietersen
1976	Mike Seary	Heinz Schafferer	Gustav Heymann
1977	Jaap Venter	Gustav Heymann	Gerry Braak
1978	Jaap Venter	Gustav Heymann	Louis van der Merwe
1979	Gustav Heymann	Jaap Venter	Louis van der Merwe
1980	Russell Sheldon / Rob Pigott	-	Syd Saunders
1981	Syd Saunders	Stephanus van Vuuren	Russell Sheldon
1982	Johan Louter	Russell Sheldon	Gustav Heymann
1983	Johan Louter	Russell Sheldon	Gustav Heymann
1984	Alan Seymour / Johan Louter	-	Fanie Viljoen
1985	Johan Louter	Gustav Heymann	Jock Schumann
1986	Johan Louter	Joe Reis	Gustav Heymann
1987	Johan Louter	Gustav Heymann	Joe Reis
1988	Gustav Heymann	Johan Louter	Dennis Samson
1989	Gustav Heymann	Johan Louter	Fanie Viljoen
1990	Gustav Heymann	Johan Louter	Ivan Charoux
1991	Gustav Heymann	Johan Louter	Don Ebsworth / Hennie Petzer
1992	Johan Louter	Gustav Heymann	Don Ebsworth
1993	Johan Louter	Gustav Heymann	Fanie Viljoen / Don Ebsworth
1994	Fanie Viljoen	Gustav Heymann	Johan Louter
1995	Fanie Viljoen / Gustav Heymann	-	Johan Louter
1996	Gustav Heymann	Fanie Viljoen	Dawie van Rooyen
1997	Gustav Heymann	Dawie van Rooyen	Anthony Bithrey
1998	Gustav Heymann	Anton Heymann	Hennie Petzer
1999	Gustav Heymann	Anton Heymann	Dawie van Rooyen
2000	Gustav Heymann	Anthony Bithrey	Jan Esterhuizen
2001	Gustav Heymann	Anthony Bithrey	Jan Esterhuizen
2002	Gustav Heymann	Dawie van Rooyen	Carel van Heerden (Snr)
2003	Gustav Heymann	Anthony Bithrey	Rusty Braga / Carel Buitendag (Snr)
2004	Anthony Bithrey	Gustav Heymann	Dawie van Rooyen
2005	Gustav Heymann	Colin Lotz	Hennie Petzer
2006	Gustav Heymann	Dawie van Rooyen	Anthony Bithrey
2007	Gustav Heymann	Anthony Bithrey	Colin Lotz
2008	Gustav Heymann	Graham Wright	Colin Lotz
2009	Hennie Petzer / Gustav Heymann	-	Colin Lotz
2010	Colin Lotz	Hennie Petzer	Louise Petzer
2011	Gustav Heymann	Carel van Heerden Jnr	Colin Lotz
2012	Gustav Heymann	Colin Lotz	Carel van Heerden Jnr
2013	Gustav Heymann	Colin Lotz	Carel van Heerden Jnr
2014	Gustav Heymann	Colin Lotz	Andre Roux
2015	Gustav Heymann	Colin Lotz	Louise Petzer
2016	Gustav Heymann	Colin Lotz	Marc Rudy
2017	Gustav Heymann	Andre Roux	Wahlied Fortune
2018	Gustav Heymann	Anthony Bithrey	Colin Lotz
2019	Gustav Heymann	Alex Frow	Anthony Bithrey
2020	Gustav Heymann	Anthony Bithrey	Louise Petzer
2021	Gustav Heymann	Anthony Bithrey	Louise Petzer / Colin Lotz
2022	Louise Petzer	Gustav Heymann	Hennie Petzer
2023	Louise Petzer	Alex Frow	Hennie Petzer
2024	Louise Petzer	Clinton Johnson	Hennie Petzer
2025	Louise Petzer	Gustav Heymann	Alex Frow

SAMCA HONORARY LIFE MEMBERS



Dennis Samson

PMCC · 1980



Don Ebsworth

EEMRCC · 1982



Russell Sheldon

EEMRCC · 1983



Johan Louter

EEMRCC · 1987



Gustav Heymann

PMCC · 1988



Colin Lotz

PEMRCC · 1995



Anthony Bithrey

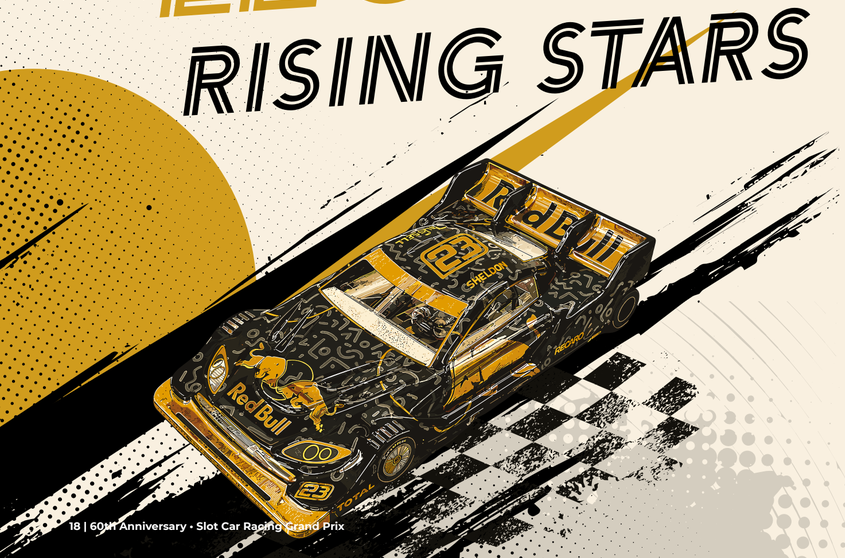
PMCC · 2020



Hennie Petzer

ELSCC · 2021

CHAMPIONS, LEGENDS + RISING STARS



The most successful racer in SAMCA history is Pretoria Model Car Club's Gustav Heymann, with 30 South African Championship titles. He is followed by Johan Louter of Ecurie Elite Model Racing Car Club, who has won eight. Louise Bibby of East London Slot Car Club, South Africa's first lady of slot racing, is the current champion and a four-time South African Champion.

South African racers have also competed in the International Slot Racing Association (ISRA) World Championships. Russell Sheldon, the 1980 South African Champion, led the way in 1992 by entering the inaugural ISRA World Championship in Česká Lípa, in the former Czechoslovakia.

Gustav Heymann has represented South Africa at ISRA World Championships in the Netherlands, the United Kingdom, Italy and Canada, competing impressively against many of the world's best. Other South Africans who have raced internationally include Johan Louter, Anthony Bithrey, two-time South African Champion Fanie Viljoen and Dawie van Rooyen, whose finely engineered chassis achieved success worldwide, including a winning Eurosport 32 chassis at the 2002 World Championship in San Francisco.

Over the years, several overseas racers have competed in SAMCA events. They include British National Champions Geoff Mitchell, Charlie Gooding, Mark Harrison and Brian Saunders; Brazilian World Champion Gugu Bernardino; and Pro Slot's Denny Kershner from the United States. More recently, Sandy Wedderburn of Scotland and the late Rob Lees of England raced in the 2019 Cambridge Grand Prix, while Richard Mack of England competed in the 2023 South African International Grand Prix. Ivan Charoux from Mauritius, twice a Grand Prix winner, is a regular SAMCA competitor.

MIKE BAXTER

Mike Baxter, a member of Durban's Equipe Veloce Model Racing Car Club, initiated SAMCA's formation after meeting with Eastern Cape clubs in 1965. He became SAMCA's first Chairman, serving for six years, and was the 1966 South African Grand Prix class champion and a four-time Grand Prix winner.

ANDRE THOMAS

Andre Thomas became the first South African Champion, winning the Sports car class in 1966. Andre took the SA title again in 1967, adding the Saloon car win for good measure. Andre passed away in 2020, but his sons, Jose and Tino, continue his legacy, both racing in SAMCA events.

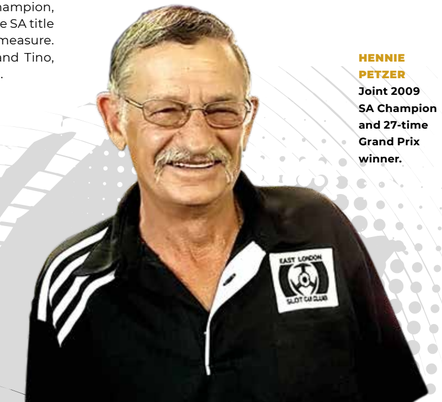
HENNIE PETZER

Hennie Petzer of East London Slot Car Club was the joint 2009 South African Champion and a SAMCA Honorary Life Member. Over four decades, he has competed in more than 150 SAMCA Grands Prix and recorded 27 Grand Prix victories.

Hennie made his national debut as a C Class driver in the 1980 Pretoria Model Car Club Grand Prix. Since then, he has been one of South Africa's most consistent competitors, while also helping develop the sport.

Away from racing, Hennie has introduced many newcomers to the hobby and mentored younger competitors, several of whom progressed to national competition. SAMCA recognised his contribution by awarding him Honorary Life Membership.

Slot racing has become a family passion, with several Petzer family members competing nationally over the years. His daughter, Louise Bibby, has followed in his footsteps to become one of South Africa's most successful racers.



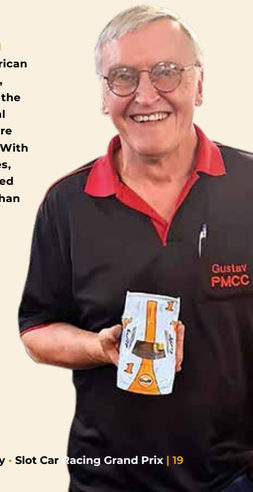
HENNIE PETZER
Joint 2009 SA Champion and 27-time Grand Prix winner.

GUSTAV HEYMANN

Gustav Heymann of Pretoria Model Car Club is the most successful slot car racer in South African history. A 30-time South African National Champion, he has been at the forefront of national competition for more than four decades.

After winning his first South African Championship in 1979, Gustav built a record unlikely to be matched. His driving skill, technical knowledge and attention to detail have made him one of SAMCA's defining competitors. Gustav has represented South Africa at ISRA World Championships in the Netherlands, the United Kingdom, Italy and Canada, racing against many of the world's leading competitors.

GUSTAV HEYMANN
A 30-time South African National Champion, Gustav has been at the forefront of national competition for more than four decades. With 200 Grand Prix races, Gustav has competed in more Nationals than anyone else.



LOUISE BIBBY

Louise Bibby of East London Slot Car Club is one of the most successful competitors in modern South African slot racing. A four-time South African Champion from 2022 to 2025, she became the first woman to win the overall South African Championship and remains the country's most successful female slot racer.

Louise was introduced to slot racing at age seven, when she accompanied her father, Hennie Petzer, to East London Slot Car Club meetings. She entered her first SAMCA Grand Prix in East London in 2003, aged nine, and attended her first away Grand Prix in Newcastle the following year. From 2003 to 2013 she competed regularly before taking a break to complete her university studies, returning to national competition in 2019.

Since returning, Louise has won four consecutive South African Championship titles. Her composure under pressure has confirmed her place among the country's leading competitors.



LOUISE BIBBY
Current and four-time SA Champion and 27-time Grand Prix winner.

JOCK DENNILL

Jock Dennill, a SAMCA Honorary Life Member and founder of the Newcastle Model Racing Car Club, was a passionate racer from 1976 to 2007. His love of the sport and its camaraderie made him a friend to many still active in SAMCA today. Jock passed away in 2024, but his contribution and presence are still fondly remembered.

ALEX FROW

Alex Frow from Pretoria Model Car Club has established himself as one of the leading racers of South Africa's current generation.

Since joining SAMCA, Alex has consistently challenged the country's top competitors and earned multiple Grand Prix podium finishes. He has also finished runner-up in the overall South African Championship. Still among the younger competitors, Alex is a regular front-runner at SAMCA events.



ALEX FROW
Alex has only raced in 24 Nationals but has already won three Grands Prix.

ALAN SEYMOUR

Alan Seymour, the 1984 South African Champion, joined Durban's Ecurie Elite Model Racing Car Club in 1982.

At the 1982 EEMRCC Grand Prix, his first national championship race, Alan won C Class and qualified for the Open Final alongside competitors such as Russell Sheldon, Gustav Heymann and Johan Louter, finishing third overall. In 1983 he placed second overall in B Class and was promoted to A Class for 1984. That year he won the Newcastle Grand Prix and finished second overall at both the East London and Ecurie Elite Grands Prix, securing the South African Championship title.

Alan moved to the United Kingdom in the mid-1990s and joined Presto Park Slot Car Club. In 2011, more than 30 years after they had last raced together, he reunited with Ecurie Elite teammate Russell Sheldon at the Presto Classic in England, where they finished first and second. Sadly, Alan lost his battle with cancer in 2019.

SYD SAUNDERS

Syd Saunders, the 1981 South African Champion, made a lasting contribution to slot car racing. He competed in 34 SAMCA Grand Prix events and co-founded both the Port Elizabeth Model Racing Car Club and the East London Slot Car Club. Syd first entered the South African Championships in 1974 and, although he retired from national competition in 2007, remained a regular presence at Grand Prix events, especially those hosted by PEMRCC.

A firm believer in fair racing and integrity, Syd earned the respect of everyone who knew him. His support for Colin Lotz and Hennie Petzer in keeping the Eastern Cape clubs active was invaluable, and his Honorary Life Membership at ELSCC reflects his enduring legacy. A true icon of slot car racing, Syd passed away in 2025 after a courageous battle with cancer.

DENNIS SAMSON

Dennis Samson has been a respected competitor in South African slot racing for many years and was recognised for both his driving ability and technical expertise. His innovative chassis designs earned widespread admiration and influenced many competitors during the 1980s. One of the highlights of his South African racing career was winning the 1980 Pretoria Grand Prix.

After relocating to the United States, Dennis remained closely connected to South African slot racing and returned to compete in the 2019 Cambridge Grand Prix and the 2021 SAMCA 55th Anniversary race in Port Elizabeth.

ROB PIGOTT

1980 South African Champion, Rob Pigott first made his name in Zimbabwean slot racing before becoming a familiar face at SAMCA Grand Prix events.

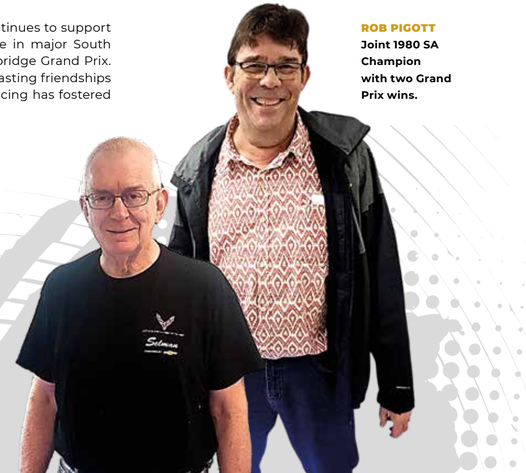
Although based internationally, Rob continues to support the sport and has returned to compete in major South African events, including the 2019 Cambridge Grand Prix. His continued involvement reflects the lasting friendships and strong international ties that slot racing has fostered over many decades.

DENNIS SAMSON
A world-class chassis builder now residing in the USA, Dennis raced in 54 Nationals and has one Grand Prix win.

FANIE VILJOEN

Fanie Viljoen was the 1994 and 1995 South African Champion and is a seven-time Grand Prix winner, whose performances established him among the country's leading competitors. Combining speed with meticulous car preparation, he consistently challenged for honours during one of South African slot racing's most competitive periods.

Like several of South Africa's top racers, Fanie also represented the country at International Slot Racing Association (ISRA) World Championship events, competing against many of the world's best. His achievements at both national and international level have earned him lasting respect within the slot racing community.



ROB PIGOTT
Joint 1980 SA Champion with two Grand Prix wins.

COLIN LOTZ

Colin started racing slot cars at the Aberaz Slot Racing Club in Port Elizabeth in 1966. His first SAMCA Grand Prix was at the Phoenix Grand Prix in Kroonstad in 1976.

He made a name for himself at only his third Grand Prix by making the Open Class final at the 1976 Klerksdorp Grand Prix. He was in D Class at the time and finished fourth in Open Class, behind three SA Champions. In 1978 he finished fourth overall in the SA Championship, as a B-Class driver. He won the South African Championship in 2010.

Colin was instrumental in establishing the Port Elizabeth Model Racing Car Club (PEMRCC), along with Syd Saunders and Johan Rupping, in 1991. He spent some time living and working in the UK, where he raced in a few British Slot Car Racing Association (BSCRA) and BOC (British Open Championship) events. He has been a devoted member of SAMCA for many years, serving as the Association's Chairman on thirteen occasions, far more than any other member.



COLIN LOTZ
Colin first raced at the Aberaz club in PE in 1966. A veteran of 165 Grand Prix events, with 35 Grand Prix wins and the 2010 SA Championship title.

RUSSELL SHELDON

An eight-time Grand Prix winner and 1980 South African Champion, Russell has always been at the cutting edge of slot car technology. In the 1970s, Russell introduced stainless steel chassis, while in the early 1980s, he pioneered the use of spring-steel, which he cut by hand, since laser cutting wasn't readily available back then. In 2013, Russell introduced Klingon tyres, which is still the standard today. He proposed the switch to brushless motors in 2022, sending a brushless-powered car to all the SAMCA clubs for testing. Brushless motors were eventually adopted by SAMCA, with huge success, three years later, in 2025.

Russell has participated in several ISRA World Championship events, including the very first ISRA event in Česká Lípa, in the former Czechoslovakia, in 1992. Russell has sponsored a few South African slot racers to enable them to compete overseas and has brought several international slot racers to South Africa to compete in SAMCA Grands Prix. He has also contributed numerous articles to slot racing magazines, putting slot racing in South Africa firmly on the international map.



RUSSELL SHELDON
Joint 1980 SA Champion, 3rd in 1981, 2nd in 1982 and 1983, and an eight-time Grand Prix winner.

KEN IRWIN

Ken Irwin from the Cambridge Slot Car Club is one of South African slot racing's great innovators. Never content to accept that something cannot be improved, he is constantly experimenting with new ideas, refining existing techniques and developing clever tools and jigs that make building and tuning slot cars easier and more precise.

Often described as a genius, Ken has an exceptional ability to solve problems and simplify even the most intricate setup tasks. Whether designing a new fixture, modifying an existing tool or finding a more efficient way of doing things, his innovations have benefited countless racers over the years.

Always willing to share his knowledge, Ken's passion for experimentation and continuous improvement has earned him the respect of competitors across the country and cemented his reputation as one of SAMCA's most inventive personalities.

ARIE THOENES

Arie Thoenes has made an outstanding contribution to South African slot racing, not only as a respected competitor but also as one of the country's premier slot car track designers and builders.

A long-standing member of the Pretoria Model Car Club, Arie has designed and constructed numerous wooden slot car circuits for clubs throughout South Africa.

Beyond building tracks, Arie has always been willing to share his knowledge and experience with fellow racers. His craftsmanship and passion for the hobby have helped shape the facilities enjoyed by generations of South African slot racers, making him one of the sport's most influential contributors away from the driver's panel.



KEN IRWIN
Ken has raced in 30 Grands Prix, winning twice.

ARIE THOENES
The country's premier slot car track designers and builders, Arie has raced in 64 Nationals with one Grand Prix win.

DAWIE VAN ROOYEN

Dawie Van Rooyen was a world-class chassis builder and the only South African slot racer to get into the export business, filling orders from slot racers worldwide. Following his participation in the 1997 ISRA World Championship in Southampton, Dawie decided to start producing his own design chassis. He built Eurosport 1/32 and GT12 chassis. His workmanship was superb, certainly right up there with the best. DvR Missile chassis won many races around the world, including an ISRA ES32 World Championship race.

Dawie was a true enthusiast and a great competitor, finishing 3rd in the 1996 SAMCA South African National Championship, 2nd in 1997, 3rd in 1999, 2nd in 2002, 3rd in 2004 and 2nd in 2006. He took a break from national events in 2007, racing again in 2008, where he came 2nd in the Port Elizabeth Grand Prix. Dawie succumbed to cancer on 3 October 2008.

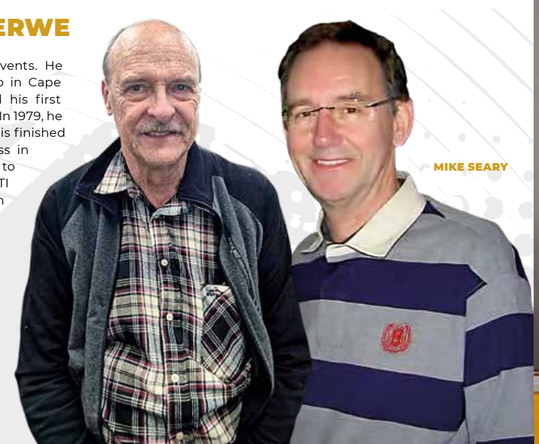
MIKE SEARY

Mike Seary is a legend of South African slot car racing, having won the South African Championship in 1975 and 1976. He competed in only 19 Grands Prix, winning 6 of them. Mike was a member of the Roues Volante club and a close friend of fellow club member and top chassis builder, Heinz Schafferer. In later years, Heinz would become Mike's father-in-law, when Mike married his daughter, Alexis. They now live in the United Kingdom.

Mike first competed in national events in 1971. In 1975, with two wins, he won the SA Championship from Heinz. Mike again won the SA Championship in 1976, finishing 2nd to Heinz in the final round of the series at the Ecurie Elite Model Racing Car Club in Durban. Heinz finished 2nd in the championship that year. Mike competed in only two of the four rounds in 1977, winning the Newcastle Grand Prix. He competed once in 1978 and once in 1979, his final national race, bowing out in fine style by winning the 1979 Newcastle Grand Prix, the final race of the year.

LOUIS VAN DER MERWE

Louis has competed in 39 national events. He joined the Cambridge Model Car Club in Cape Town in the early 1970s and entered his first SAMCA Grand Prix in Kroonstad in 1972. In 1979, he joined the Pretoria Model Car Club. Louis finished third overall in the SAMCA Open Class in both 1978 and 1979. He took a break to race full-size open-wheel Formula GTI cars, returning to active participation in SAMCA events in 2014.



MIKE SEARY

LOUIS VAN DER MERWE
Louis races both slot cars and real cars.

JOHAN LOUTER

With 19 Grand Prix wins and eight South African Championship titles, Johan is one of South Africa's most accomplished competitors. During the 1980s he established himself as the country's leading slot racer, regularly competing at the highest level against the strongest fields of the era, racing cars with chassis which he built himself.

Johan's success extended beyond South Africa, representing the country at International Slot Racing Association (ISRA) World Championship events and competing against many of the world's finest slot racers. His achievements both locally and internationally have secured his place among the sport's most respected competitors.



JOHAN LOUTER
One of the top racers in the 1980s and 1990s, Johan is an eight-time SA Champion with 19 Grand Prix wins.

DON EBSWORTH

One of SAMCA's longest-serving members, Don Ebsworth competed for Durban's Ecurie Elite Model Racing Car Club across 18 seasons, entering 66 Grands Prix between 1976 and 1995. A SAMCA Honorary Life Member since 1982, he also made a significant contribution as a leader.

Don co-founded Ecurie Elite in 1963 and served on its committee for nearly 30 years. Although he raced slot cars from the club's early days, he did not enter national competition until 1976.



ABOVE: Every man is a little boy at heart... Mr Don Ebsworth of Durban gets his car ready for the 3rd leg of the South African Slot Car Championships held in East London at the weekend.

"After 66 Grands Prix and numerous podium finishes, Don retired to New Zealand. At 94, he still follows South African slot racing closely."

Elected SAMCA Chairman in 1982, Don served until 1985, then returned after a two-year break for a second term from 1988 to 1990. Only Colin Lotz has served longer as Chairman. In the mid-1980s, Don also helped refine the SAMCA Racing Rules, many of which remain in use.

The highlight of Don's racing career was winning the 1991 Newcastle Grand Prix. He reached 18 Open Class finals and remained a consistent podium contender. His best South African Championship result was third place, achieved in three consecutive years from 1991 to 1993. Don was also part of the dominant Ecurie Elite Enduro team, which won the national nine-hour endurance race four times – in 1981, 1982, 1984 and 1985.

After 66 Grands Prix and numerous podium finishes, Don retired to New Zealand. At 94, he still follows South African slot racing closely.

DON EBSWORTH

Although a founder member of the Ecurie Elite Model Racing Car Club in 1963, Don only started racing in Nationals in the late 1970s. A veteran of 66 Grands Prix and multi-time podium finisher, Don retired to New Zealand where at the age of 94, he still closely follows slot racing in South Africa.



THE NEXT GENERATION

The continued success of SAMCA depends on a steady flow of new competitors entering national competition and challenging the sport's established champions. Encouragingly, recent years have seen several younger racers demonstrate that they have the speed, consistency and determination to compete at the highest level.

Competitors including Andre Roux, Arno Landman, Clinton Landman, Derek Heyns, Darren Schultz, Liam Bibby and others have already earned places in Open Finals at SAMCA Grand Prix events, racing alongside many of the sport's most accomplished drivers. Their performances have shown that the next generation is more than capable of competing against established champions while continuing to gain valuable experience.

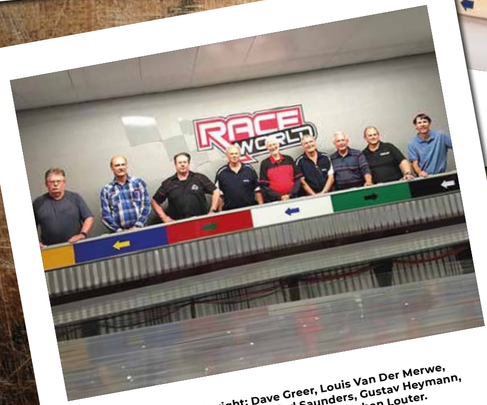
Just as today's legends once learned from the generations before them, these competitors are helping ensure that the future of South African slot racing remains bright. Their enthusiasm, commitment and willingness to learn, combined with the support and mentorship of more experienced racers, will continue to strengthen the sport for years to come.



1983 Dunnottar A Class Final. Right to left, Johan Louter, Dennis Samson, Jock Dennill, Gustav Heymann, Don Ebsworth and Russell Sheldon.



The Petzer racing family.



Legends, left to right: Dave Greer, Louis Van Der Merwe, Colin Lotz, Anthony Bithrey, Syd Saunders, Gustav Heymann, Russell Sheldon, Craig Wilson and Johan Louter.

THE EVOLUTION OF SLOT CARS

From the early days of rail racing until about 1963, most slot cars used model-train or Pittman motors. In 1964, Japanese manufacturer Mabuchi transformed the hobby with its FT16 “tin can” motor.

Armature rewinders quickly adapted the FT16 into high-performance versions. Dozens of small companies produced modified motors, but Champion and Mura became the best known and most successful.

Professional slot car racing emerged in 1965, when leading manufacturer Russkit formed the first professional team: Mike Morrissey, Rick Durkee, Ron Quintana and Len Vucci. Known as Team Russkit, they wore matching blazers and toured 50 tracks across the United States in three weeks to demonstrate the company’s cars and equipment. Other manufacturers soon followed, and young racers began earning salaries from slot car companies.

In 1966, Mike Morrissey won a major *Rod & Custom* magazine championship at Checkered Flag Raceway in Torrance, California. Racing for Team Russkit, he used a scratch-built car with an innovative front diaplane and rear spoiler. The victory marked a gradual but decisive shift from exact-scale realism to purpose-built speed machines. Team Russkit’s lightweight piano-wire chassis and advanced aerodynamics helped define the 1/24-scale professional racing era.

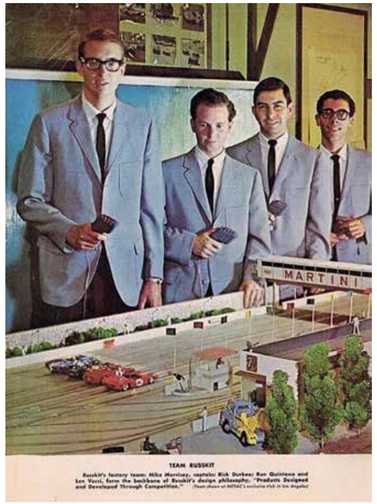
In the United States, racing centred on 1/24-scale cars running on large commercial tracks with banked corners. In the United Kingdom, 1/32-scale cars predominated on shorter, flatter club circuits. These formats encouraged different designs: the wider, faster 1/24-scale cars used lightweight brass-and-wire chassis, while the smaller, more demanding 1/32-scale cars generally used heavier brass-plate chassis. Because South African racing relied mainly on 1/32-scale cars from 1966 to 1998, chassis development largely followed British trends.

The anglewinder, introduced in 1968, was the most important advance in slot car design.

A modern slot car usually mounts its motor transversely, sometimes at an angle to the rear axle. In brushed cars, this layout uses the armature’s gyroscopic effect to improve cornering; in brushless cars, the rotating bell produces the same effect. The relevant force is precession – the reaction of a rotating mass at 90 degrees to an applied force. In an in-line chassis, with the motor mounted at 90 degrees to the rear axle, precession shifts weight from one end of the car to the other. This can make the car prone to de-slotting in one direction and excessive rear-end sliding in the other.

Mounting the motor across the chassis shifts weight laterally. Because the armature or bell rotates opposite to the wheels through the gears, the transfer is always toward the inside of the corner, helping stabilise the car and reduce tipping.

Brushed motors are larger than brushless units, so they are usually angled slightly to clear the brush gear while retaining practical rear-wheel diameters. This “anglewinder” layout balances theoretical benefit with efficient packaging.



ABOVE: Team Russkit 1966





In 1969 Team Champion’s Bob Emott built a car using a spring steel centre section and full air-control side dams, wing and diaplane.





In 1966, Mike Morrissey won the Rod & Custom championship race in California. Racing for Team Russkit, he drove a scratch-built car with an innovative front diaplane and rear spoiler, inspiring other professional builders and marking the start of air-control design.



Boom, and just like that, every slot car was consigned to the trash heap. The most important advance in slot car design came in 1968 with the advent of the anglewinder.



A current SAMCA-spec Sports 24 with a brushless motor.

A replica of a full sidewinder stainless steel chassis, as raced by Russell Sheldon in 1970. Built by Dennis Samson.

A current SAMCA-spec Production 24 with a brushless motor.

Forward of the motor, chassis can take several forms. During the 1970s – and until laser- or EDM-cut chassis appeared in the 1980s – most used piano-wire rails, wire-and-tube hinges and wide hinged side pans. Builders kept the metal as low as possible and set ground clearance to the minimum allowed. Some clubs specify a minimum clearance; others let the chassis front run only a few thousandths of an inch above the track to improve stability and cornering speed.

Chassis design can be difficult to describe because no single layout has been proved best. Even successful racers often cannot explain precisely why one car is faster than another. Today, the dominant approach is the "flexi-iso" or "flexi-board" chassis. Pioneered by Ian Fisher in the late 1970s or early 1980s, the versatile "flexi-board" design performs well on most tracks.

When a slot car enters a corner at speed, momentum carries it forward. A chassis that is too stiff resists the change in direction, while controlled flex absorbs some of the load and helps generate traction.

The "flexi-board" uses a central longitudinal pivot – the "flexi hinge" – to let the front and rear twist independently. This absorbs cornering forces, while the side rails damp longitudinal twist, help keep the guide blade vertical and largely isolate it from rear movement. The rails also add torsional stiffness and limit rear-chassis twist. Because excessive grip can make the car tip, builders tune flex by varying side-rail thickness.

These side rails, or "torsion bars", add little beam stiffness: pressing the centre spine can easily bring it into contact with the track. The design works best with some "plumber" movement. Under braking and cornering, greater force on the guide helps keep the car in the slot. Upward hinging lets the rear of the pans and body lift slightly, transferring weight forward. This plumber effect resembles a dragster lifting its front wheels under acceleration; the opposite torque under braking is less visible but significant. The "flexi-iso" layout is especially effective at managing these forces.

Chassis are set up as a "tripod": the front sits slightly above the track to minimise drag on the straights, while the guide and braids carry the front load and the rear tyres support the back.

Some chassis allow slight fore-and-aft movement of the side pans, so the body can shift relative to the centre section, guide and rear wheels. Under braking, this moves weight forward; under acceleration, it shifts weight rearward to improve traction. Hinged side pans also transfer body weight across the chassis in corners. Loading the outside tyre increases traction and limits excessive outward sliding.

Movement between chassis sections is always minimal. Its purpose is to provide controlled isolation among the guide, motor and rear-axle assembly, and body.

Modern Eurosport chassis are laser- or EDM-cut from spring steel, eliminating piano wire and hinges as the main sources of flex and damping. Many current designs also allow slight lateral movement of the motor box and rear axle. Known as "rear-end steering", this lets the rear of the chassis and body move outward slightly in a corner, then pull back into line as the car accelerates away.

Ultimately, the aim is to deliver power smoothly, allowing the car to run near its limit while remaining manageable – in short, to achieve the right level of grip. Motors have also evolved significantly, most notably with the introduction of brushless technology.

Compared with brushed motors, brushless units are more efficient, require far less maintenance and deliver power more smoothly. They also generate less heat, extending component life, while providing greater torque and more progressive acceleration, especially at low speeds.

For better or worse, the era of scratch-built cars has largely disappeared, taking much of the builders' innovation and experimentation with it. Modern SAMCA rules permit only commercially available chassis, supplied by a small number of manufacturers.



Champion Bob Cozine 16D size motor, circa 1969.



Mura B Can motor, 1970.



Pro Slot S16D motor – the dimensions are the same as the original 1966 Mabuchi FT16.



Cahoza Group 12 motor with a Koford armature.



The ultimate brushed motor. A Koford Group 7 Strap Motor.

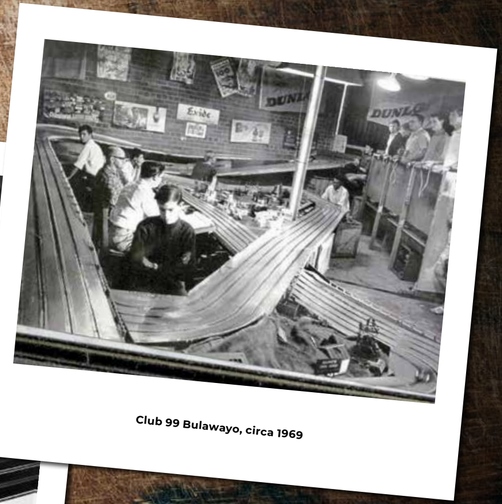
SAMCA TRACKS
PAST & PRESENT



ISCOR Vanderbijlpark Model Racing Car Club



Andre Thomas, the first SAMCA Champion, standing on the left.



Club 99 Bulawayo, circa 1969



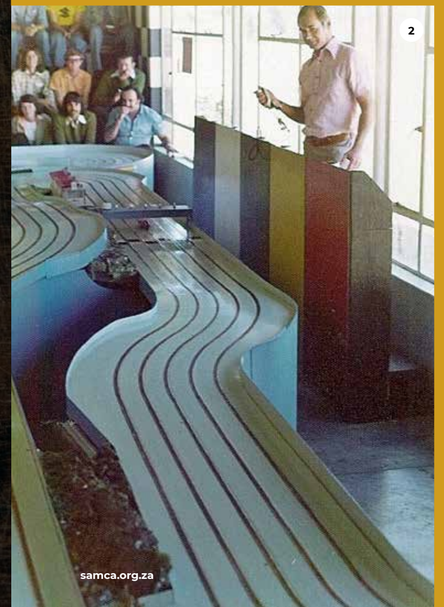
1



3



6



2



4



7



5

1. Kinleyside Raceway, Bulawayo
2. Kinleyside Raceway, Bulawayo, 1975. South African Formula One Champion John Love opened the club.
3. Cambridge Slot Car Club, Cape Town. The track was built in 1974 and is still in use today.
4. Revised Ecurie Elite Model Racing Car Club track circa 1990.
5. Fochville
6. Ecurie Elite Model Racing Car Club, Durban, circa 1975.
7. East London Slot Car Club







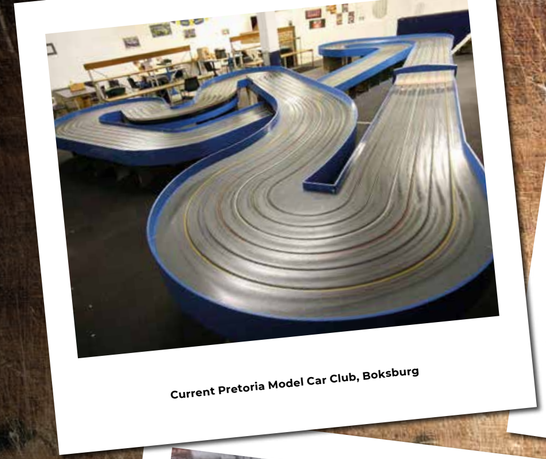




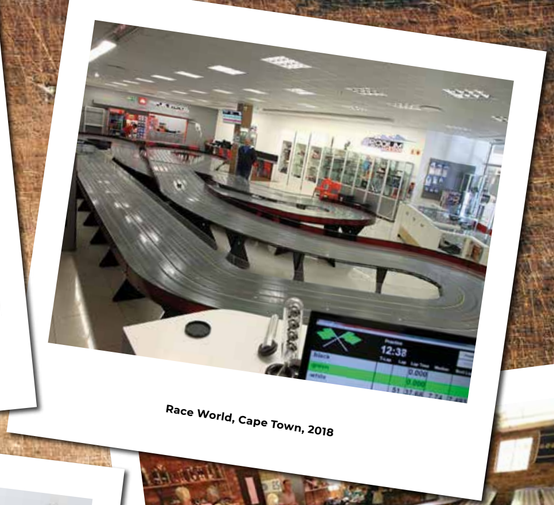




1. Stilfontein Slot Car Racing Club
2. Malmesbury Slot Car Club, 2016
3. Mini Speedway, Cape Town
4. Original Newcastle track, circa 1977
5. Full Throttle Raceways, Newcastle
6. Pretoria Model Car Club, circa 1980
7. Port Elizabeth Model Racing Car Club



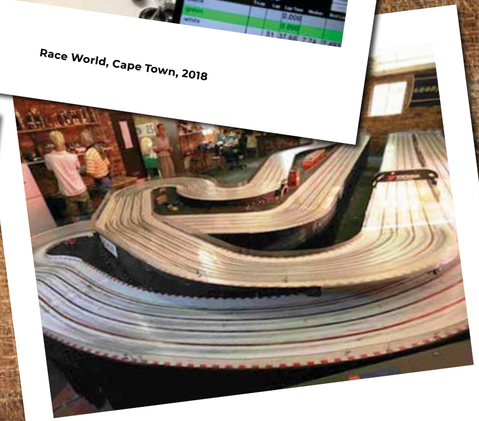
Current Pretoria Model Car Club, Boksburg



Race World, Cape Town, 2018



Rebel Slot Car Club



Witbank

SPECIAL FEATURE

ROSS BRAWN OBE

SLOT RACER AND MOTORSPORT ENGINEER



Imagine discovering Scalextric at eight or nine and being instantly hooked. Slot car racing remains your passion through your teens and early twenties, until college and a career in motor racing leave little time for the hobby – though you continue to follow it closely.

About three decades later, a car bearing your name wins both the Formula One Constructors' and Drivers' Championships, and Scalextric marks the achievement with a model of it. A dream? Not if your name is Ross Brawn.

Anyone with even a passing interest in motor racing will know Ross Brawn, whose career includes 22 Formula One world titles: 11 Constructors' Championships and 11 Drivers' Championships.

A former motorsport engineer and Formula One team principal, Brawn worked with several F1 teams and the TWR Jaguar World Sportscar team. In 1991, his Jaguar XJR-14 dominated the World Sportscar Championship, decisively outperforming rivals including the Peugeot 905 and Mercedes-Benz C291.

As technical director of championship-winning Benetton and Ferrari teams, he became known as the mastermind behind Michael Schumacher's seven world titles.

After a sabbatical in 2007, Brawn returned to Formula One as Honda's team principal for the 2008 season. In early 2009, he acquired the team and formed Brawn GP, which won both the Constructors' and Drivers' Championships that year. Mercedes bought into the team in November 2009, retained Brawn as team principal and acquired his remaining shares in 2011.

Less widely known is that Brawn's motorsport roots lie in slot racing. In the early 1960s, his father, Ernie, belonged to the Ashton-under-Lyme slot car club in Lancashire and introduced him to the hobby. At nine, Brawn's engineering ability was already evident: a photograph of his finely built 1/32-scale Cooper Oldsmobile sports-racing car appeared in a 1964 issue of Model Cars. At 15, he wrote an article on modifying a Mabuchi 13UO motor, published in the magazine's April 1970 issue.

As a member of Reading slot car club, Brawn remained deeply involved in the hobby during his early career, contributing technical articles to Model Cars. In 1970, he and Tony Hough, a colleague at the Atomic Energy Authority in Harwell, Oxfordshire, founded the part-time business HB Products – Hough and Brawn – to manufacture and sell slot-racing components. Brawn mainly designed and built the chassis.

In the late 1960s, the Electric Car Racing Association introduced Formula 32, a low-cost national class intended to attract more participants. Its cars used standard components and simple, inexpensive chassis built to strict design limits. From 1970 to 1975, Brawn hand-built brass-and-wire Formula 32 chassis under the HB Products name.

Brawn competed in British national events, and his innovative chassis were highly regarded. HB Products also sponsored leading British racers, notably multiple national champions Ian Jenson and Pete Hore.

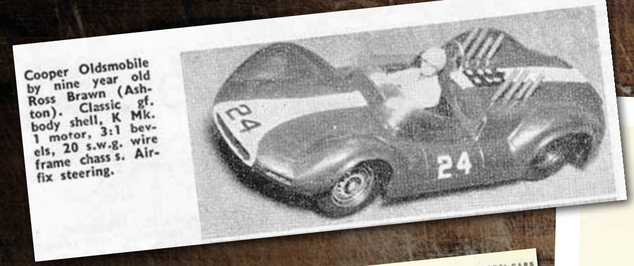
Brawn left slot racing in 1976 when he joined March Engineering in Bicester, likely because his career left little spare time rather than because his interest waned. He moved to Williams in 1978, then worked with FORCE/Beatrice and Arrows before joining TWR Jaguar in 1989, where he designed the championship-winning 1991 Jaguar XJR-14.

Later in 1991, Brawn returned to Formula One as Benetton's technical director, helping Michael Schumacher win the Drivers' Championship in 1994 and 1995 and the team secure the 1995 Constructors' title. He joined Ferrari in late 1996, again working with Schumacher, and helped the team win its first Constructors' Championship in 16 years in 1999 – the first of six consecutive titles.

Brawn took a sabbatical at the end of 2006 and returned in November 2007 as Honda F1's team principal. On 5 December 2008, Honda announced its withdrawal from Formula One, leaving the team with a new 2009 chassis but no engine. Three months later, Brawn led a management buyout and entered the 2009 championship as Brawn GP, powered by Mercedes-Benz High Performance Engines.

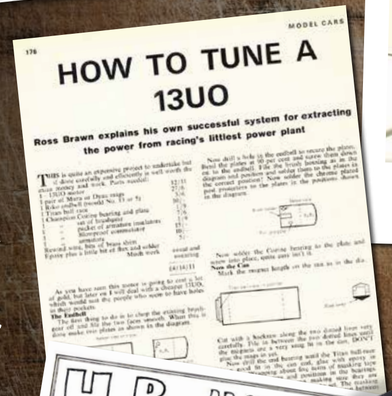
At the 2009 season opener in Australia, Jenson Button put Brawn GP on pole, with Rubens Barrichello second; they finished the race in the same order. Across the 17-race season, Button won six Grands Prix and Barrichello two. The team recorded four one-two finishes and podium results at 12 races, winning the Constructors' Championship while Button claimed the Drivers' title.

Brawn is set to return to top-level motorsport in 2027 as an adviser to Pramac Racing owner Paolo Campinoti. Pramac competes in MotoGP as a Yamaha satellite team. It became the first independent squad to win the MotoGP Teams' Championship in 2023, and Jorge Martín claimed the 2024 riders' title with the team on a Ducati Desmosedici GP24.



ABOVE: At nine, Brawn's engineering ability was already evident: a photograph of his finely built 1/32-scale Cooper Oldsmobile sports-racing car appeared in a 1964 issue of Model Cars. At 15, he wrote an article on modifying a Mabuchi 13UO motor, published in the magazine's April 1970 issue.

RIGHT: At age 15, Ross wrote an article on modifying a Mabuchi 13UO motor for open class racing, which was published in Model Cars magazine's April 1970 issue.


MODEL CARS

176

HOW TO TUNE A 13UO

Ross Brawn explains his own successful system for extracting the power from racing's littlest power plant

THIS is quite an expensive project to undertake but if done carefully and efficiently is well worth the time, money and work. Parts needed:

1 13UO motor
1 pair of Mod-Tec rims 31 or 51
1 Kiko endbell (model No. 13 or 5)
3 turn hall core
Champion Core
1 pair of brushes
1 pair of temperature insulators
Motorpol commutator
Bearing wire, bits of brass shim
Epoxy glue a little bit of Bot and rubber

Now drill a hole in the endbell to secure the pinion. Bend the pinion as in fig 1 and secure then down on to the endbell. File the front face of the pinion as in diagram and position now where on the pinion shaft the correct position? Now where on the pinion shaft the correct position? Now where on the pinion shaft the correct position?

SAMCA AFFILIATED CLUBS

PORT ELIZABETH MODEL RACING CAR CLUB (PEMRCC)
Baywest Mall, 100 Baywest Boulevard, Hunters Retreat, Gqeberha, 6017
Chairman: Colin Lotz
Tel: 083 607 2753
Email: lotzcg@gmail.com

PRETORIA MODEL CAR CLUB (PMCC)
6 Roer Road, Dalpark, Brakpan, 1543
Chairman: Daan Grobler
Tel: 082 788 1393
Email: gustav.heymann1@gmail.com

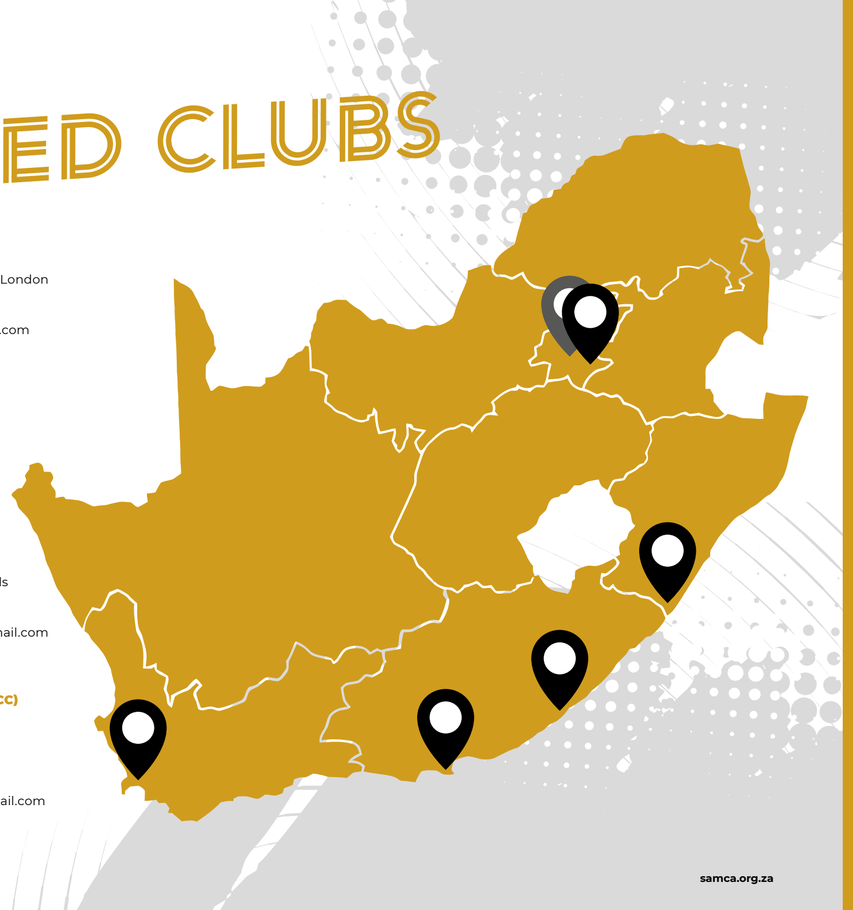
AUTO AFFAIRS MODEL RACING (AUTO AFFAIRS)
12 Jet Park Road, Jet Park, Boksburg
Chairman: Wayne Bekker
Tel: 084 612 3754
Email: wayne.bekker@outlook.com

EAST LONDON SLOT CAR CLUB (ELSCC)
33 Dyer Street, Arcadia, East London
Chairman: Clinton Landman
Tel: 076 161 5586
Email: louisepetzer6@gmail.com

CAMBRIDGE SLOT CAR CLUB (CSCC)
10 Cambridge Road, Maitland, Cape Town, 7405
Chairman: Willie Taylor
Tel: 082 450 3929
Email: cambridge-slotcars1969@gmail.com

HOOLIGAN SLOT CAR CLUB (HSCC)
Contact club for venue details
Chairman: Brenden James
Tel: 067 711 0125
Email: brendenjames14@gmail.com

ECURIE ELITE MODEL RACING CAR CLUB (EEMRCC)
Established in 1963
176 Voortrekker Street, Jacobs, Durban
Chairman: Viek Benade
Tel: 076 395 7900
Email: viekbenade2019@gmail.com



“If you keep piling in the resources on the problem you have today and never allow some resources to go into the future, then you will never have that future.”

– Ross Brawn, Total Competition: Lessons in Strategy from Formula One



WWW.SAMCA.ORG.ZA

Designed by crispmedia.co.za