

Speed Demons and a Tramp at the birth of air-cooled racing

Head west from downtown Los Angeles until you get to the Pacific Ocean at Santa Monica, where the old Route 66 from Chicago ended. Then follow the beachfront 'boardwalk' south for 3 or 4 miles and you'll be in Venice.

In 1891, when there was not much of anything in Southern California, tobacco baron Albert Kinney and a partner bought several miles of marshy land along the coast immediately south of Santa Monica. They developed the suburb of Ocean Park next to Santa Monica and then Kinney, now on his own, set about building his 'Venice of America'.

There were several miles of canals forming a residential area, a lagoon, and a 370m (1,200 foot) pleasure pier with an auditorium, a restaurant built like a ship and a dance hall. Later there were imported gondolas on a lagoon, a miniature railroad, a roller-coaster, a heated indoor salt-water swimming pool and numerous other attractions.

The new development opened for 4 July 1905. Visitors in their thousands arrived by Pacific Electric rail from Los Angeles on what was then regarded as the best public transport system in the World.

Kinney's pleasure facilities have long gone, but the surviving canals have been restored. There is a tightly packed and eclectic mix of beachside architecture from Spanish Mission to Modernist to Frank Gehry. Slotted through this is a deceptive hint of the area's significant motorsport heritage in a street which is simply called 'Speedway'. It's a strange name for what is not much more than a one-way alley, and it has nothing to do with the one-off Venice Grand Prix of 1915 which was won by the legendary showman, racer and record-breaker Barney Oldfield.

'Speedway' originally meant a stadium for harness racing or, as in this case, a road built for driving a carriage or car at 'speed'. This 'speedway', from Ocean Park to Venice and then on to the next suburb of Playa Del

February 2014 sees the centenary of the release of the first Charlie Chaplin 'Tramp' film. Just 6 minutes long, it was made at an event that is likely unique in motorsport history – when the leading drivers of the time got together to help youngsters go motor racing in air-cooled racing cars they had built for themselves. Probably this was the first manifestation of air-cooled racing as we know it – simple, cheap, exciting and encouraging of innovation and talent.

Rey, was laid out to attract visitors and real estate sales, and was paved with asphalt in 1910 when it was probably the only road in the area to be sealed. Visitors could motor down from Los Angeles along rough dirt roads, and then hoon up and down the new speedway to their hearts' content.

Probably the Indianapolis Motor Speedway first associated the term with motor racing, when it was announced in 1907. America eventually settled for 'speedway' as meaning a track built for motor racing with all its turns in one direction. Most of the rest of the world – starting with Australia – eventually got the idea that it



LOOSE FILLINGS

was 'a sport in which motorcyclists race several laps about a short oval dirt track', which is the fourth and last of the Oxford Dictionary's definitions.

Another term in early use was 'motordrome'. Roughly where a modern equivalent of the original canals stands on Venice's southern edge at Marina Del Rey is the long forgotten site of the first board track 'motordrome'. Board tracks started out as velodromes which had then been used for motorcycles. The one at Playa Del Rey was conceived shortly after the opening of Indianapolis in 1908, and was built specifically for cars.

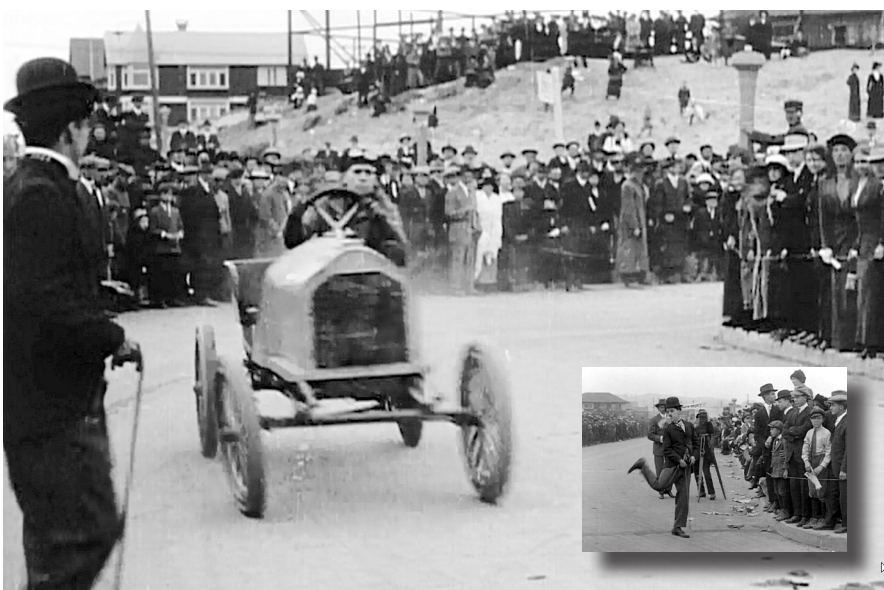
Big things were expected of it. It even had its own spur off the nearby Pacific Electric tracks to bring in spectators. It was circular, one mile round, and steeply banked with spectators seated around the rim as well as in the infield.

The inaugural meeting was held in April 1910, only 3 months after construction started. Prior to the meeting, Barney Oldfield had run a

Left: a postcard view of the Motordrome looking north to the Santa Monica hills.

Below: racing on the Santa Monica road circuit with 'Terrible Teddy' Tetzlaff's Lozier winning in 1910. (Old Motor). The Santa Monica races were the setting in 1913 for the *Speed Kings* starring Tetzlaff and Earl Cooper. Cars like these were modelled by the boys at Venice and later.





mile at Daytona at 131.73mph, and on the first day at Playa del Rey he did a mile in 36.22 seconds, which was just 99.40mph. That was only to be bettered marginally later in the meeting; his and the other cars were really too fast for the track.

This first meeting attracted only 55,000 spectators over its 7 days' racing and record breaking, and it is not clear that things ever got better crowd-wise. In total there seem to have been just 19 days of racing before the end came.

Maybe an arsonist was engaged? On 11 August 1913 a fire was started, allegedly by vagrants, which burned the place down. Up-and-coming sports writer Damon Runyon is said to have commented, 'Playa del Rey burned last night with a great saving of lives.'

Another kind of motor racing held sway to Venice's north. The streets of Santa Monica hosted annual road races over an 8.4 mile course from 1909 to 1919 with the prestigious Vanderbilt Cup and Grand Prize races being held there in 1914 and 1916.

About the time that the Motordrome burnt down, plans were being made in Venice for a unique motor race that also saw the debut of one of the cultural icons of the twentieth century – Charlie Chaplin's little 'Tramp'.

No doubt the inspiration was the news of 9 December 1913 that Santa Monica had been awarded the prestigious Vanderbilt Cup and Grand Prize races in February 1914. In American motor racing terms it was a bit like being awarded the Olympics.

Motor racing fever clearly infected the good citizens and merchants of neighbouring Venice too, because within a week they had come up with a plan for the Junior Vanderbilt Cup. There seemed to be no problem with the hijacking of the Vanderbilt name. On 17 December the *Venice Daily Vanguard* announced 'Mid-winter Motor Race for Venice.'

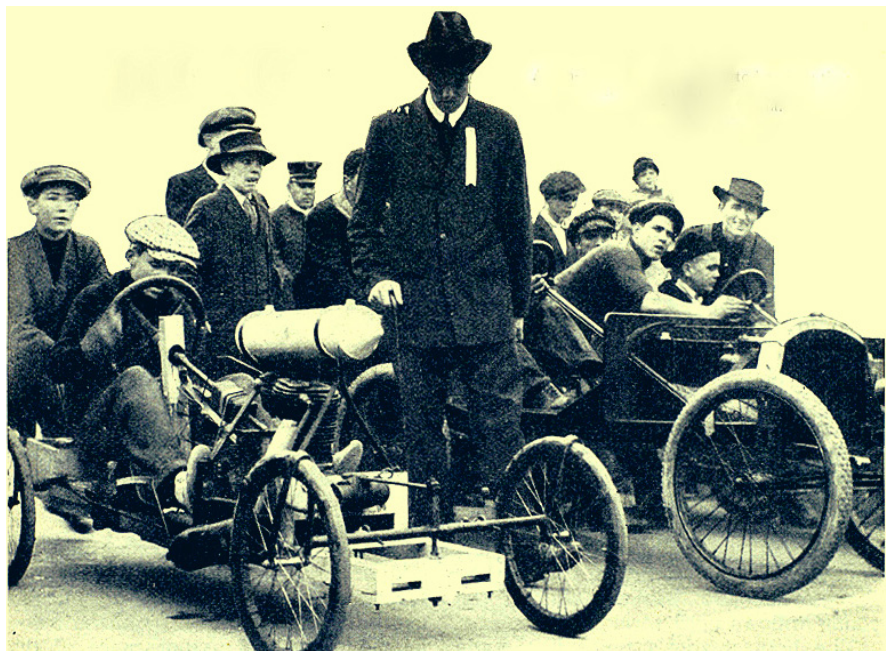
'...Venice is destined to eclipse them all with its Junior Vanderbilt Cup Race which is to become an annual mid-winter event. Venice is known as the children's paradise and the creation of this day of enjoyment is for boys

Left: stills from *Kid Auto Races* captured from a restored version on the DVD 'Chaplin at Keystone' released in 2011 by the British Film Institute.

Top: the Tramp's first moment on screen. The boy in the second car looks to be no more than 5 or 6 years old. His elder brother (probably) has darted out of the crowd to give him a push.

Centre: The Tramp obstructs the film crew (left) and then nearly gets run over.

Bottom: another near miss - one of the bigger cars.



Above: slender of face, this is not Barney Oldfield (see him below congratulating winner Alf Van Vranklin) but it could be three times AAA champion Earl Cooper.

16 years of age and under. The purpose of the event is to stimulate mechanical genius in the boy and to create within him confidence in his ability to master the problems of life. Not only will there be enjoyment, but health and sanity in this keen, wholesome sport, minus all danger.'

There were to be two main groups of events – for 'pushmobiles' (billycarts or soapboxes with handles) and for small motor cars, and they were divided into two divisions – with and without rubber tyres, and single and twin-cylinder engines.

The races were to be held on Saturday 10 January 1914 and 'foreign entries' were said to be welcome – the 'noted Italian driver Willie Wells' was expected to enter. The entry fee was 'one dime' (10c) and the Ocean Park Bank was going to hold the money. Entries were to be lodged with E.H. Pendleton of the Venice Cycle Shop; Mr Pendleton was notable for having invented electric timing equipment which had been in use at the nearby Motordrome and at Santa Monica and was later put on the market for trapping speeding motorists.

Prizes would be worth \$200 and there would be 4 cups, one for each class. The pushmobile race would be over a ½ mile stretch of the ¾ mile Venice street course while the motor races would be over 5 and 10 miles. The programme included a twin-cylinder 10 lap heat, a single-cylinder 10 lap heat, a twin-cylinder match race and a 'free-for-all' over 20 laps.

'Speed demons' from as far away as Pasadena were expected to enter. A galaxy of motor racing stars was behind the organisation. Barney Oldfield was starter, Teddy

Tetzlaff referee and Louis Nikrent inspector of entries. Earl Cooper headed a list of judges. George Adair was chairman of the advisory board. By the time entries closed a total of 40 had been received with 9 or 12 (according to the report) in the motor car classes.

At this point Charles Spencer Chaplin needs to be introduced. Newly signed-up by the Keystone Film Company at twice his salary as a touring music-hall comedian, Londoner Chaplin arrived in Los Angeles on 13 December 1913. His first film, *Making a Living*, in which he played a dandy aspiring to be a newspaper reporter, was made between 5 and 9 January 1914.

His next film was most likely *Kid Auto Races at Venice, Ca* (to give it its full title), and it was unquestionably the first film finished and released in which audiences saw Chaplin's 'Tramp' with Derby hat, baggy trousers, tight jacket and toothbrush moustache. Wholly improvised, and reputedly shot in just 45 minutes, the 6 minute long 'half-reeler' film features a series of scenes where the Tramp keeps getting in the way of a camera crew trying to film the races.

There are shots of boys practising and racing with their pushmobiles up and down one of the ramps and of the motor cars scooting round and narrowly missing Chaplin. The Tramp gets pushed and kicked to the ground by the actor playing the director and for

the first time executes his signature 'flick-kick' of a discarded matchstick.

The trade journal *Exhibitors World* wrote, after the release of the movie, 'We do not think we are taking a great risk in prophesying that in six months Chaplin will rank as one of the most popular screen comedians in the world'. Chaplin was to make no less than 35 films for Keystone that year, and by the end of it, when his contract was expiring, he asked Keystone for a pay rise from \$150 to \$1000 per week and they turned him down. He signed for the Essanay Film Manufacturing Company at \$1250, and the rest is history.

Most of the boys were in home-made likenesses of current top racing cars with single or twin motorcycle engines, but two were in modified single-cylinder Browniecars made by the Omar Motor Company of Newark which they advertised as childrens' cars.

In the Chaplin film we can identify a cherub-faced Alfred Van Vranklin in a Browniecar in which he won both the 10 lap single cylinder race, and the 20 lap 'free-for-all' in 37min 17.4sec. On his 19th lap he had such a lead that after skidding into a roadside ditch and overturning, he was able to right his car and finish to win.

Although the *Santa Monica Daily Outlook* judged the spectator numbers at a mere 1000, a report in the magazine *Technical World* in May 1914 claimed 10,000 were there. Certainly there was a crowd at least 4 or 5 deep around the course as is clearly seen in the Chaplin film. It was obviously a big success from the Venice perspective and its daily paper headlined its report with 'RACES A HOWLING SUCCESS'.

'Junior' motor racing under the guidance of the sport's top drivers was now well under way and soon boys all over California were doing it. It was to make one of them a star and eventually become one of America's biggest spectator sports in the form of midget car speedway.

Terry Wright ... to be continued



Slipping and Sliding ...

Chas McGurk tells all about Cooper handling

In *Loose Fillings* 45, Tony Caldersmith gave us an excellent analysis of early Cooper suspension. The following lighthearted notes are based on recent opportunities to sample each of the three basic variations of these fine little cars on the race track.

So to recap ... early cars up to and including Mk5s of 1951 use a channel section chassis (like an MGTC). Mk6s and 7s have a chassis made of straight 1.5in tubing, while Mk8 and later use curved tubing which breaks all the engineering rules but looks good ... these are the 3 groups.

However, apart from these differences, the other basic dimensions and specifications do not vary a great deal. They all use the same 15in wheels, the same twin-leading Lockheed brakes front and rear, a motorcycle gearbox, and have a similar track and wheelbase.

Having said that, how different are they to drive? Strangely not a lot! The reason being is that, as we have noted, the above basic specifications of all these models vary very little ... although the later cars are certainly lighter and lower. However, on the track all models feel pretty much the same.

A Cooper's a Cooper! There are subtle differences of course from model to model. For instance the early cars used a Norton gearbox called a 'dolls-head' which dated back to the 1930s. Its positive stop mechanism (today we would say sequential gearchange), wasn't always positive, whereas the later AMC boxes in the Mk9s or later are robust and foolproof.

Most cars used the same Cooper-made rack and pinion. Mk9s and on [optionally] used a single disc brake at the rear, which wasn't a good idea because the self-energising characteristics of the two systems are not compatible. The TRUTH is that the essential difference in Cooper handling and performance is determined entirely by the

size of the engine i.e. whether it's a 500cc, or a full blown 1100!

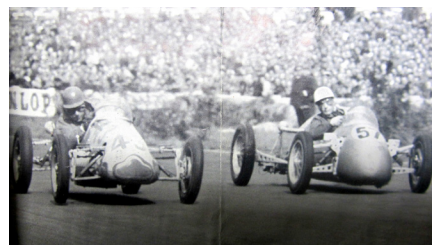
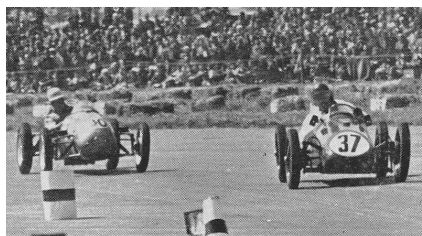
That's when Dr. Jekyll becomes Mr. Hyde! In 500cc. Dr. Jekyll form, a Cooper is a delight to drive. In three words ... it's 'fun without fear'! With wide-ratio gearing the car accelerates briskly up to about 90mph before the available 40bhp is exhausted. But by then you forget your fingers are numb and your mirrors useless. You play tunes on the single pipe as you go up and down the sequential motor-cycle gearbox. You suddenly become the last of the late brakers! And you happily understeer the little car into corners with all four wheels waving wildly. With a solid rear axle, and limited power available to break the rear wheels free, understeering becomes the big problem. On long fast curves with no diff, you can feel the revs drop and the exhaust note go hard as the motor works to compensate! Your lap times aren't red hot, but who cares that you're lapping 10 seconds slower than everyone else. All that matters is that you're having fun!

HOWEVER ... this half-litre Dr Jekyll can be changed into a hideous Mr Hyde at the drop of a motor. Pop in a big 1100 JAP or Vincent V-twin, and suddenly a Cooper is a different beast! A 14:1 compression ratio beast that's impossible to start unless

We only have these grainy magazine extracts to illustrate McGurks' points but they do it quite well. Top: Stirling Moss (Cooper, understeering) who just couldn't take Frank Aikens (Iota, oversteering) at Silverstone May 1950.

Centre: Moss again, maybe oversteering, this time in his Keift, drives right round the outside of understeering Eric Brandon.

Bottom: Ken Wharton at Shelsley Walsh in August 1950. He is flying 'blind' between high banks drifting under perfect control.



it's back on compression on the right stroke. An 80bhp methanol-burning beast that spins its wheels for twenty feet in a 13sec standing quarter mile, with a top whack well over 100mph. A rocket ship that shakes and shivers on take-off!

If that sounds exaggerated I apologize ... but crouching in a tiny cockpit with the rev counter creeping up to 6000, and the whole world out of focus - that's what it feels like! A big Cooper on song REALLY does cook-with-gas! So now is probably a good time to confess. Of all the racing cars I've driven.... a big Cooper is the most exciting!

By a long way. No question! However we have to acknowledge that cornering fast in a Cooper is, well, different.

Not that you can't go round corners fast. It's just that you have to work harder at it, because the Cooper's wheels assume some very weird angles relative to the vertical. Weird enough to make small children point excitedly, and for race commentators to say some rude things.

Tony Caldersmith clearly explained to us why this is so. It's simply because the traditional suspension Cooper set up offers insufficient roll resistance, which results in EXCESS BODY ROLL with consequent positive wheel-camber change.

The transverse top-leaf spring front and rear with bottom wishbones is certainly a good idea. It's simple, and robust. It's instant independent suspension. But when the body rolls the wheels lean the wrong way! Photos abound of anxious Cooper drivers cornering with body and wheels pointing and leaning in different directions! All of them wrong!

Positive camber is BAD. It's negative camber we want. Just observe the negative camber

on the front wheels of modern racing cars, particularly F1 and V8s, and compare them with the 'wheels at all angles' of a typical cornering Cooper.

In an early effort to address this problem of body roll (and camber change), Coopers simply added more leaves to the springs, which was only partially successful. For instance a Mk5 Cooper rear spring has 7 LEAVES!.... enough for a truck! And even Mk5s look like they are falling over on corners.

It wasn't until the Mk8 that Coopers

realized the easy way to increase roll resistance was to widen the clamping points for the springs. This effectively reduced the working length of the springs from 16in to 12in rear and 10in front. Shortening the spring's working length made it stiffer, and significantly reduced body roll on turns. And fitting the famous 'curly leaf' between the clamping points cleverly added even more roll resistance. But despite the above 'improvement' in spring location, even late model Coopers still assume some very weird wheel angles on high speed corners.

This seems to be more apparent to the observer than the driver. Alighting from his car the Cooper driver often has to deal with ribald and unkind remarks about his valuable historic racing car which he would rather not hear. The strange thing is that the driver, if tightly strapped in, is largely unaware of these spectacular body and wheel angle changes, and is later quite surprised to see positive photographic evidence that his life is frequently in danger!

So in summary ... All Coopers are fun to drive! The bigger the engine, the more the fun. All Coopers with live rear axles understeer ... particularly in the wet.

A Cooper with a ZF limited slip diff laps quicker in the wet than one with no diff. If you spin with no diff, get off the throttle, let go the steering and you'll snap back straight. If you spin with a diff, you'll keep spinning.

Other wise there's not much in it ... and the Final Word = Coopers are fun!

Chas McGurk.

Below: A lovely crisp Steve Oom photo of Garry Simkin with his Mk4 Cooper Vincent's suspension under load at Eastern Creek recently.



CLASSIFIEDS

For Sale. "The World's First Pulse Jet Car", Cooper Mk5-12-5 currently in F3 500 specs with a four-stud JAP and AMC Norton gearbox and has been refreshed and repainted. The SNECMA pulse jet engine and all its ancillary equipment will go with the car with a huge scrap book and history file. Expressions of interest invited, garmey@xtra.co.nz

For Sale. BB Ariel. Well known air-cooled car built by Brian Schlireck in 1958 and raced at Amaroo, Oran Park, Catalina, Silverdale and Bathurst hillclimbs, Calder and Hume Weir. Car is complete, with spare engine. Has CAMS logbook. Ideal for Lb racing or GEAR events. Chris Tracey 0418 441 314.

For Sale. Aussie air-cooled project built in late 1940's by Eddie Thomas, but with no race history. Originally fitted with JAP 500, then at some stage modified to fit a Vincent V-twin, both sadly gone. Essentially a rolling chassis with some panels, fuel tank, BSA M20 gearbox, engine plates. Open to offers, may consider swap for motorcycle or parts. Email for pics Alan 0413 031 075 or 02 9627 3290, harper6t@aol.com

NZ BITS & PIECES

A New Zealand-built air-cooled special has re-appeared after many years. The Satellite 500 built in Gisborne in the late 50s or early 60s was advertised on the on-line auction site "Trade Me" and has been bought by the son of a previous owner, Karl Rolfe. Originally the car ran an Ariel Square 4 engine but had been converted to a Triumph 650 twin sometime during its life. Karl would like to restore the car with an Ariel and just happens to have a spare engine for the Square 4 motorcycle which was also his father's.

THE LOG

Graeme Brayshaw, Cooper-Norton Mk8, ran at the Waitemata branch Vintage Car Club Chelsea Hillclimb on 3 November and was beaten only by a de Havilland Tiger Moth-powered Riley (very) Special. (Another air-cooled?)

Graeme Brayshaw, Cooper-Norton Mk8, at a combined Historic Racing and Sports Car Club/Vintage Car Club race meeting at Taupo on Saturday, 30 November. Graeme won against a 4.5 litre V12 Lagonda - 1 cylinder beats 12 !

Derry Greeneklee ran his Mk5 Cooper JAP 1100 in the Tailm Bend (S.A.) sprints and recorded 14.12 seconds for the standing ¼ mile.

Andrew Halliday (Cooper Norton Mk5) and Garry Simkin (Cooper Vincent Mk4) competed at Eastern Creek, or Sydney Motorsport Park if you prefer the rebranding, on November 23-24.

The Geelong Sprints of December I saw Brian Simpson and son Keith compete with Penrite cars, Brian in the Mk9 Cooper Norton and Keith in the Mk5 Cooper JAP 1100.

EWING SPECIAL UPDATE

The Ewing Norton Special was built by Ron Ewing, a railway engineer, in Sydney in the mid-1950s. Ron was an active Singer Car Club member who loved Buick straight eight motors. He had worked on various race cars using these motors. Around this time he also owned the Cooper Mk5 now owned by the Halliday family from Sydney.

The 500cc formula appealed to Ron and he decided to build his own car. A Norton International motor was used in a round tube frame. The front suspension featured a transverse leaf spring with lower wishbones and Renault Dauphine uprights and stub axles. Rear suspension was by swing arms, rubber springing and fabricated uprights. Renault 15in wheels were used and the same model supplied the front drum brakes. Rear braking was effected by a single central disc and XK120 Jaguar callipers.

The gearbox was an upright Norton. A steel nose was fabricated using mudguards from a pre-war car of uncertain make. The cockpit sides were steel fuel tanks and louvered aluminium panels, depending on whether the car was being used for circuit racing or shorter hillclimbs. At the rear a fibreglass engine cover completed the car.

Ron first competed with the car at Mt Druitt in July 1957. After this the car regularly ran at various venues in NSW over the next 5 years or so. These including Foley's Hill, Silverdale hillclimb, Castlereagh sprints, Catalina and Warwick

Farm. During this time the Ewing was continually being modified. The rear suspension was changed to utilise bottom wishbones and a transverse leaf spring.

It wasn't long before the car was no longer a 500. A V-twin motor, similar to those built by Sid Ward for speedway racing, was built for the car using a Harley Davidson crankcase, custom-made barrels and Norton ES2 heads. Later on the car ran at Catalina with a Vincent. In the mid-sixties Ron started modifying the chassis to take a Skoda motor and VW gearbox, however he lost interest and took up sailing instead!

After 20 years in Ron's garage in Sydney the car found its way to Melbourne where it was rebuilt by Malcolm Thorne with a Norton ES2 OHV 500cc single. Subsequently the Harley Norton was rebuilt and the car ran with this until a major blow-up wrecked the motor. In this period the Ewing Norton Special competed around Victoria winning the Aircooled Cup and also featuring on the front page of *Auto Action* performing a spectacular barrel roll.

After the Norton Harley blew up the ES2 motor was re-installed. I bought the car, and many parts, after it had been sitting in Malcolm's shed for 16 years. After establishing the Ewing's history, and obtaining a CAMS CoD, I stripped the car completely, finding that every component needed rebuilding. This work was carried out over an extended period during which other interests took more and more of my time. Like Ron Ewing before me I eventually realised my enthusiasm was with these other interests. I very much enjoyed learning about this unique example of Aussie engineering ingenuity. The work I carried out on the car gave me considerable satisfaction. Over time though I could see I was never going to get the car running again.

During my ownership I had maintained contact with John Ewing, Ron's son. John had helped his father build and race the car initially. I approached John, and his son Peter, to see if they were interested in taking the car over. The short story is that the Ewing Norton Special has now returned to the Ewing Family who have many memories of its early life.

Bob Morey



SOUTH AUSTRALIAN SPECIAL

In the late 1950s Adelaide race car builder Garrie Cooper competed in an Austin 7 with an Austin A30 engine at Collingrove hillclimb and sprints. Realising the limitations of this set-up he set about building a space-frame loosely based around a Cooper configuration, albeit wider to accept the A30 engine mounted transverse in the rear. This was to be chain driven to the rear axle, but Garrie moved on to building a Streamliner sportscar and this project was shelved.

The completed chassis with rear sprocket housing and uprights was purchased by Nick Davies who took it home and built the car up by making his own axles, steering rack, wheels and many other components. The front wheels used BSA hubs laced into Fiat 500 rims and Ford brakes. The rears were also BSA hubs laced into 13 inch car rims.

He fitted a BSA Road Rocket engine which was light and fast. Nick ran the car at a few sprints and hillclimbs then sold it to Ron Guppy who had John Webb at Elfins make an aluminium front body section. Ron also did sprints and ran at Collingrove hillclimb where he won *The Advertiser* trophy with fastest time of day. He also ran at the first Mallala race meeting but broke an aluminium con-rod in the methanol fueled engine.



Above: the BSA Special on the hill at Collingrove.
Below: the Ewing Special on a hillclimb startline.

LOOSE FILLINGS

Loose Fillings is published digitally and in print about 3 times year. Please send a book of 60c Australian stamps to receive printed issues by post in Australia only or supply your email address. Recent issues can be found in pdf format at www.hsrca.com.

EDITOR Terry Wright, 02 9418 2974,
tsrwright@gmail.com

PUBLISHER Garry Simkin,
28 McClelland Street, Willoughby, NSW 2068,
Australia, 02 9958 3935
gjsimkin@iprimus.com.au

FOUNDING EDITOR Graham Howard