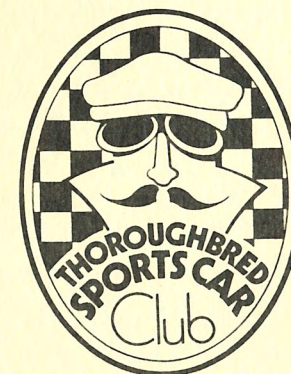


# *top gear*

FEBRUARY 1986



REGISTERED BY AUSTRALIA POST — PUBLICATION No. NBH 6791

NEWSLETTER OF THE THOROUGHBRED SPORTS CAR CLUB





## SUBJECTS OF THE CLUB

"Fostering better acquaintance and social spirit between the various owners of thoroughbred sports cars in Australia"

"To help and advance thoroughbred sports car owners and ownership"

"To establish and maintain by example a high standard of conduct and a respect of the laws of the road".

## GENERAL MEETINGS OF THE CLUB

The General Meetings of the club are held on the second Wednesday of each month, commencing at 8.00 p.m. at the Sydney Rowing Club, Great North Rd., Abbotsford.

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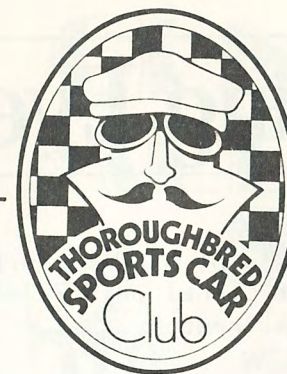
SEND ALL COPY FOR "TOP GEAR" TO: Zig Kyzelis,  
8 Prestige Ave., Lakemba, 2195.

DISCLAIMER: Any opinions published in this journal should not be regarded as being the opinion of the club or the committee which also cannot accept responsibility for the accuracy of any information in the journal which is published in good faith as supplied to the editor. Articles and or photographs are invited and should be forwarded to the editor for publication bearing the name and address of the writer.

## ADVERTISING POLICY AND COST

Advertisements are accepted subject at all times to the discretion of the committee. Display and Advertising: Full page \$30 per issue, half page \$20 per issue, ¼ page \$11 per issue, 1/8 page \$5 per issue. Advertisements are on a monthly continuing basis unless the advertiser notifies the Editor.

Classified Advertising:— Financial members of the club receive the first four lines at no charge. Rates are \$1 per line of ten words with a minimum charge of five lines (\$5.00). Non members should send payment when lodging their advertisement.



## COMMITTEE

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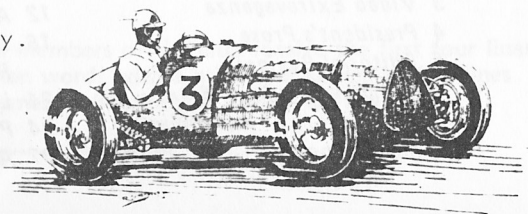
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# Coming Events

- 29th FEBRUARY \* Super Sprint at Oran Park South Circuit, contact Lionel on 477 1464 for further info. and sup. regs.
- 3-9 MARCH \* Week-End Away - Observation Run. Details in next months "News Sheet".
- 23 MARCH \* Motorkhana - Details in next months "News Sheet".
- 19 APRIL \* Comedy Theatre Night.
- 27 APRIL \* Super Sprint at Amaroo.
- 18 MAY \* Super Sprint at Oran Park.
- 8 JUNE \* Super Sprint at Oran Park.
- 5 JULY \* Gambling Night.
- 13 JULY \* Super Sprint at Amaroo.
- 10 AUGUST \* Bathurst Flying 5th.
- 21 SEPTEMBER \* Hillclimb at Silverdale.
- 19 OCTOBER \* Canberra Hillclimb.
- 26 OCTOBER \* Grand Prix Day.
- 9 NOVEMBER \* T.S.C.C. Annual Concours.
- 30 NOVEMBER \* Super Sprint at Oran Park.
- 5 DECEMBER \* Xmas Party.

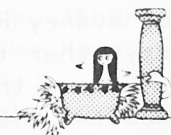


## GENERAL MEETING 8 PM

WEDNESDAY,  
12th FEBRUARY, 1986

### VIDEO EXTRAVAGANZA by

MARK  
ANTHONY  
PRODUCTIONS  
PTY. LIMITED



#### EVENTS COVERED RANGE FROM:

1. The original Motorkhana of two years ago (before the rules were changed) which was fun-packed, action-packed, LASER-packed and the timing doubtful. Watch Lionel Walker take 2nd place with only one leg in plaster, see Jim Peters sweat as the tension mounts.
2. Gary Bruce displays the END result of his first outing at the track in his newly acquired Ferrari or "How to give your favourite panel beater 20 grand in one easy lap".
3. Len Madar blows a trail of blue stuff at Oran Park all the way to the Canberra Hillclimb with fellow club members Ray and Mark, but what is it with Len, what is his secret, how does he do it? What enables him to see through that black perspex visor on his crash hat — all will be revealed.
4. Exciting race—cam—type scenes from inside Mark Anthony's Corvette and Mini. These exciting, breathtaking, sometimes dangerous scenes were enough to have his seats recovered twice in one season..... and more.
5. Vic Andrews at Amaroo and Silverdale never looked so challenging, Ray Ross never so determined, David Stone, yes he's there with Roland Clark, Dave Muir, Len Madar, Mike Du Cros, R. Warner and many, many more are included in this star-studded production.

This movie (home movie) has the largest cast of any TSCC film production to date, with more laughs, more ex-members, than you care to mention — Ben Hur eat ya heart out.

THIS MOVIE CANNOT BE MISSED !

## presidents prose



I am writing this report soon after attending the Vintage Race Day at Amaroo and watching our Sporting Secretary Lionel run in a 3.8 Jaguar MkII Sedan. Lionel did very well, finishing a creditable ninth in only his second outing in that car. Speaking of the Committee, I must report that we had a very successful meeting on that terrible Wednesday night prior to the long week-end, planning the years calendar which I believe will be published elsewhere in the magazine.

All your Committee attended heedless of the weather and I hope you can attend our next meeting on the 12th February, '86 at Sydney Rowing Club to make your comments on the above and any other topic of your interest.

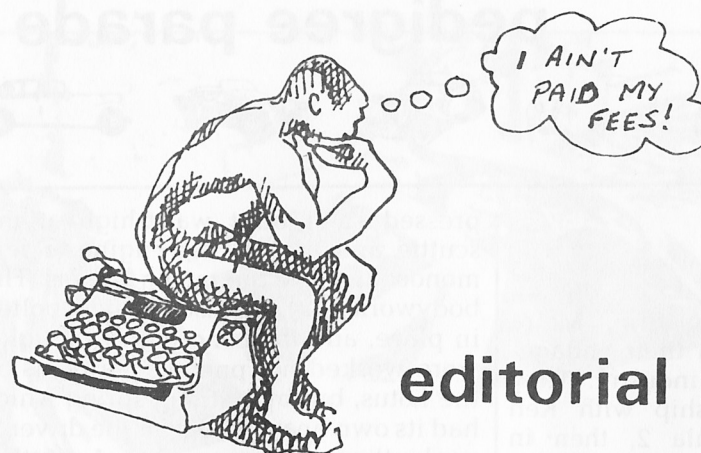
Among the many points discussed at the Committee Meeting was the need to broaden our membership numbers by 15 to 20 members which we believe will make the organizational side of our club much easier to manage regarding attendance at events etc. To this end we have adopted as our motto for the year "Remember, every member get a member" - because we believe we can all do our bit towards this aim.

I am also hopeful of having at the February Meeting a video compiled by Mark Anthony showing the exploits of several members and cars on different circuits.

Looking forward to seeing you again soon.

RAY ROSS.

REMEMBER - EVERY MEMBER GET A MEMBER.



## editorial ravings

The Editorship for this year has had drastic changes instigated - for better or for worse you now have 2 Editors to produce our tremendous Top Gear. It was also decided at the last committee meeting to produce the magazine as a bi-monthly, with a newsheet detailing the coming events for the in-between month. We are confident this system will work.

It's been difficult to produce this first issue for the year having nil original articles from members etc. so liberty was taken and material pinched from other sources - we hope you all find something of interest.

Looking towards the future we are positive that the members at large will fill the magazine with their regular contributions.

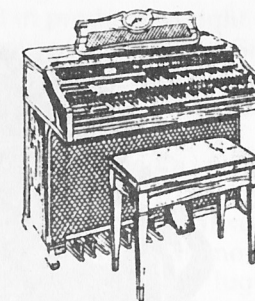
Happy reading !

GEOFF and ZIG.

If its music or musical instruments you, your family or friends require contact

**RAY & MARGARET ROSS**

We have two conveniently located stores at Liverpool and Carlingford selling records, tapes, accessories and all things musical from guitar picks to grand pianos. We have access to most brands and we will not be undersold on genuine deals and if we can't help you, we will put you on to someone that can. After sale service Sydney's best or I will help you let my tyres down.



Phone: 872 3439



## pedigree parade



### Matra

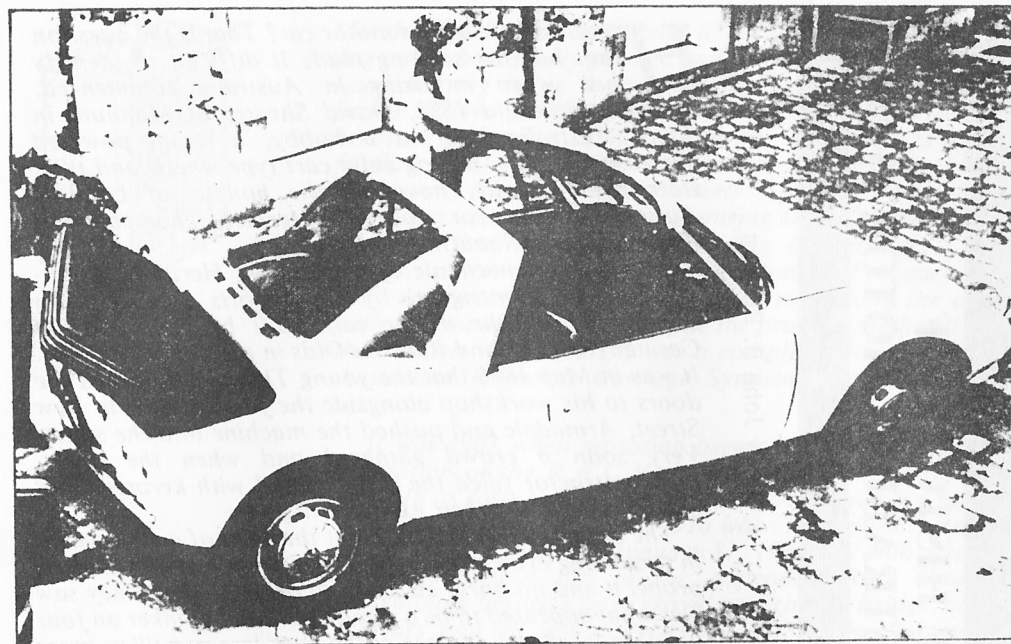
Primarily an aerospace firm, Matra usually had partners in their engagements with the motor industry. They established a relationship with Ken Tyrrell, first in Formula 2, then in Formula 1, winning the world championship in 1969 with Jackie Stewart at the wheel of a Matra-Ford in brilliant style.

But the Ford connection had to be broken. Matra had taken up with René Bonnet to build the Djet mid-engined road car, but found the small factory inadequate. Accordingly, they set up a new plant at Romorantin to build a rather more refined car. This was the Matra M530A, shown first at the Geneva motor show in 1967, and the first mid-engined car to sell in anything more than penny numbers.

The engine was a German Ford V-4 which fitted neatly in a new platform of

pressed steel built waist-high at the scuttle and around the engine, a real monocoque like the racing Matras. The bodywork was of plastic panels bolted in place, and the concealed headlights were worked not pneumatically, as on the Lotus, but by a strong spring which had its own heavy pedal for the driver to yank them down again. A further curiosity was the gearchange, which because it was designed for a front-wheel-drive car, was the wrong way round when installed in the Matra, with first at the top right of the gate and top bottom left.

The roadholding was good, although the car was underpowered, and some of the obvious problems of the mid-engined layout, noise, for example, or cooling difficulties, were solved quite readily. Matra's Ford connection in racing did not survive the marketing tie-up with Chrysler-Simca in 1969, but the road car did. The 530 went on until 1973



Styling mid-engined cars was never an easy task. The Matra M530 was at best controversial. But it did have the advantage of coming to pieces easily. The roof came off Targa-style, and luggage went into the space behind the engine, but mechanical accessibility was always a mid-engined problem. The rear window hinges upwards and a cover on the shelf behind the seats has to be lifted.

while Matra collaborated in a new mid-engined sports car, the Bagheera.

This was unique in exploiting the width of the car and the absence of a transmission tunnel to make the seating three abreast. A fabricated chassis of tubes and sheet steel provided the basis for the plastic bodied Bagheera, but like the M530A it was never powerful enough, even with a 90 bhp version of the Chrysler Alpine engine to take advantage of its good weight distribution and splendid handling.

It remained in production right up to the PSA takeover of Chrysler-Simca, then it was replaced in 1980 by a new version known as the Talbot Matra Murena.

This took the Bagheera recipe a stage further, with a more up to date body on a steel hull zinc-dip galvanized against rust. The engine was mounted almost over the back axle. A luggage bin at the rear, like the Fiat X1/9, together with the three-abreast seating, made the Murena perhaps the best packaged mid-engined car ever.





# THE HISTORY OF AUSTRALIAN MOTOR SPORT

By John B. Blanden

**H**orseless carriage or motor car? That is the question that has for so long made it difficult to identify just when motoring in Australia commenced. Between 1885 and 1898, David Shearer of Mannum in South Australia built as a hobby, a steam powered horseless carriage, having solid cart type wheels and tiller steering. Generally, however, the honour of building Australia's first car goes to Herbert Thompson of Armadale, a Melbourne suburb.

An engineer/mechanic by profession, Herbert Thompson had been intrigued by the reports coming from overseas about the motor cars built by Karl Benz in Germany in 1885 and Ransom Olds in the U.S.A. in 1886. It was in May 1896 that the young Thompson opened the doors to his workshop alongside the family home in New Street, Armadale and pushed the machine into the street. Very soon a crowd gathered and when the inventor/constructor filled the burner bowl with kerosene and put a match to it, their excitement grew.

The onlookers were amazed at the sight of a man seated in something evidently expected to go that had no pedals to propel it and no horse attached to draw it. What they saw was what appeared to be a small version of a jinker on four pneumatic wheels, the two at the back larger, a tiller, more associated with a boat, and underneath the seat, a boiler.

That autumn morning in Armadale those privileged few people witnessed something which was to be the end of the horse age and the commencement of a whole new industry in Australia, that of the motor car. This trial of Thompson's steam car was the first of many, and the vehicle which was little more than a powered 4-wheeled bicycle, had a long and useful career. At the end of 1896 the Thompson steam car was pitted against the first petrol driven car imported into Australia, a 4½ h.p. Benz that had been imported by the Tarrant Motor Company and purchased by Mr. A.D. Terry. In the event the steam car was driven by Mr. E.L. Holmes, who was later to become the secretary of the R.A.C.V. The wheels of the Benz were shod with solid rubber tyres which frequently left the rims. This competition is perhaps the first recorded history of any motor sport in Australia and it is interesting to note that Thompson won the event.

In 1900 the Thompson achieved further fame by being the first car ever to make an overland run in Australia from Bathurst in N.S.W. to Melbourne, a total of 593 miles, which was achieved in 56½ hours running time. At the time the car was returning from Sydney where it had been exhibited at the Sydney Agricultural Show.

The other car, which was also claimed to have been the first Australian car, was that driven by Mr. Henry Austin and built for the Australian Horseless Carriage Syndicate. This car was exhibited at the 1897 Cycle Show at the Melbourne Exhibition Building when the then Governor, Lord Brassey, was driven around the track in the new vehicle. It was recorded in the 'Australian Cyclist' of

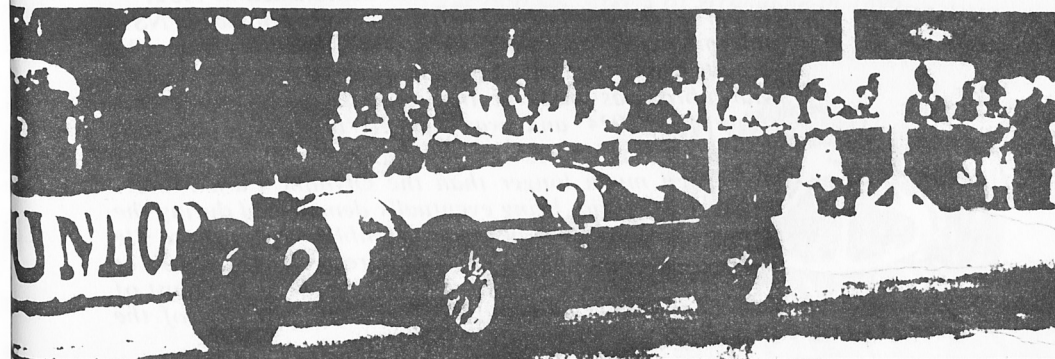


March 4, 1897 "this auto, built like a stylish double seated dog cart is beautifully painted and trimmed, the colours of Lord Brassey being a conspicuous feature. The motive power derived from horizontal oil engine using ordinary kerosene takes up a small space in the rear and acts upon friction gearing (with chain and sprocket wheel resembling the bicycle) direct to the rear wheels". The car was built at Fitzroy, a suburb of Melbourne during 1886 and early 1887 and was first run at the beginning of February. The demonstration it gave at the exhibition on February 16, 1897 was most impressive with it driving along the oval path at around 10 m.p.h. Despite the promise predicted for the Herbert Austin car, it was a complete failure and the Australian Horseless Carriage Syndicate quickly folded up.

It was 1903 when motoring became organised with the formation of the R.A.C.V. on the 9th December of that year. In its early years it was called the Automobile Club of Victoria for it was not until 1916 when it received the right to the prefix Royal. On January 31, 1904 that club arranged an inaugural run to the Aspendale Race Course. Assembling before a large crowd on Princess Bridge, some 30 cars and 20 motor cycles set off to the Aspendale Ground where the facility and ease of which automobiles could be handled at speeds was demonstrated, not only to a large crowd of spectators but also to many Parliamentary and Municipal representatives who had been especially invited to see the display.

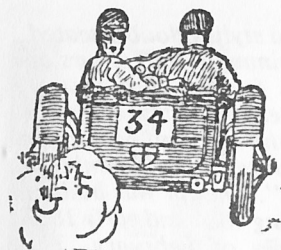
In New South Wales in that same year of 1903, the Automobile Club of Australia was formed and they had their first rally from Sydney to Coogee, thus becoming the first organised motoring event in N.S.W.

The first major sporting event took place in 1905, when in February of that year, the Dunlop Rubber Company sponsored the first reliability speed trial from Melbourne to Sydney calling it "The Dunlop Reliability Motor Contest". A total of 27 entries was received from all States with 23 competitors starting and 17 finishing. The route ran from Coburg to a finish at the Melbourne Hay Market. The contest took 5 days and the winner being Captain



Stan Jones in the flying Maybach.





Herbert Tarrant in an 8 h.p. Tarrant, a car manufactured by him. When motor competitions in 1906 began to develop in America and Europe, Australia was not far behind in organising events for local and enthusiastic owners of these new contraptions. The pre-1910 era saw quite a number of trials and in 1906 a race meeting was organised on a private property at Aspendale where a track was built and a variety of cars of the time including Napiers, Tarrants, Talbots and Panhards staged a series of events before a large crowd.

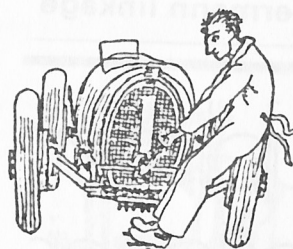
In 1911 a band of enthusiasts including Mr. Jack Day, Fred and Percy Cornwall and Mr. Miller staged a meeting at Richmond Race Course using a G.W.K. and two Mercedes cars. Hillclimb meetings were organised at Wheelers Hill and Wildwood between 1911 and 1914. Victoria was now the only state to run these events for in all others there were reliability trials, speed tests and hillclimbs.

World War I put a stop to all motor events and the first post war event was a hillclimb conducted by the R.A.C.V. at Greensborough. The Aspendale track came back into use and all kinds of events were conducted there including petrol consumption tests, which were very popular in those days and often included in trials.

A new form of sport came to life at about this time and that involved the city to city record runs with all forms of car and driver combinations rushing around Australia from Perth to Sydney both by means of conventional roads and in some cases overland using no roads whatsoever, in particular Francis Birtles in 1906 established a record between Melbourne and Darwin in a Bean car.

The R.A.C.V. was very prominent as a competition organising body in the 1920's and shared the honours with the Light Car Club of Victoria later of Australia, as the foremost in that field. About 1924 the motor-drome was built at Olympic Park in Melbourne and for several years track racing was held there regularly. The track consisted of a concrete saucer and Fronty Fords, Morgans, Ballots, Amilcars, Bugattis and the like were among the famous makes represented. Although the track was very popular with the motor minded young people of Melbourne, it was not a financial success and it was demolished in 1932.

During the same period two tracks were popular in NSW at Penrith and Maroubra. At the Penrith track a snaky flat circuit while that at Maroubra was a concrete saucer. Maroubra was built in the sandhills surrounding that suburb in 1924 and was opened the following year. Maroubra was an outstanding success in the early years and lasted much longer than the Olympic Park Motor-drome in Victoria, being eventually demolished during the war when the surface began to crumble. It is now the site of a housing development. Races were also in the 1920's at a circuit on the beach at Gerringong on the south coast of N.S.W. whilst a very popular hillclimb was that of the Wisemans Ferry hillclimb.



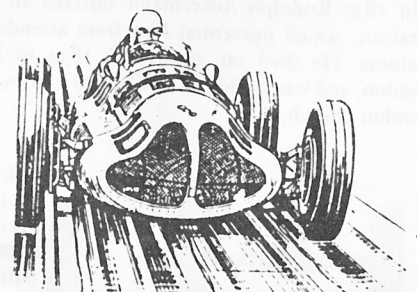
Motor racing of the Grand Prix type was inaugurated at Phillip Island on a circuit discovered by Mr. Jack Day and members of the Light Car Club in 1928. Grand Prix races were conducted at this venue through into 1935.

Motor sport by this time was now extremely popular with the general motoring population and with the motor industry of the time. The industry was supporting motor racing to a considerable degree both in development of motor cars and in financial support of the individuals. Motor racing circuits were springing up in all states and in title they are probably too numerous to attempt to list at this point.

It was in 1953 that the appeal to Australians of challenging the elements came to the fore again when the Redex Company approached the Australian Sporting Car Club concerning an around Australia trial. The Light Car Club of Australia had had visions of running such an event as far back as 1928 but had been unable to obtain sufficient financial backing. Reliability trials were at that time extremely popular and with the support that was given by various commercial firms the initial prize pool of 500 pounds was quickly increased to 3,000 pounds. The 1953 and 1954 Redex trials are history, they captured the imagination of everyone in Australia with full page articles being given in the newspapers daily on the progress of the competitors. Even Australia House in London dressed one complete window with a large size map of Australia showing all the main towns and cities where the trial was to pass through and daily the map was changed to show the progress of the cars.

Australian motor sport has covered a great deal of ground since those days, it is now professional, it now has enormous sums of money spent on not only promoting events but in maintaining the vehicles and developing them into world class performers. In so far as individuals are concerned, Australia has been successful in producing two World Driving Champions, while there is hope that in 1982, a round of the World Drivers Championship will be held here.

Things have progressed quite a deal since Herbert Thompson opened the doors of his workshop and pushed his car into the streets of Armadale in 1896.





# Printmaker, Publisher - and Steering Designer

*Ackermann, Rudolph (1764-1834).* Rudolph Ackermann was essentially a fine arts publisher and a bookseller. Born in Stolberg, Saxony on 20 April 1764, he moved, with his father who was a coachbuilder and harness maker, to Schneeberg in 1775. There he was educated and eventually joined his father's business. He did not remain there for long, visiting several German towns and eventually settling first in Paris and then in London.

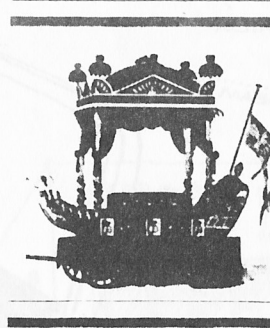
For the first ten years of his stay in London, he was engaged in design work for many of the principal coachbuilders. In 1795 he married an Englishwoman and set up a print shop in the Strand.

Ackermann did not confine his efforts to the fine arts alone. In 1801 he patented a method to render paper, cloth and other substances waterproof. He erected a factory in Chelsea and was among the first private individuals to illuminate his business with gas. In 1805 he was responsible for the preparation of Lord Nelson's funeral car.

Between 1818 and 1820 Ackermann was occupied with a patent for moveable carriage axles. This was to become known as the 'Ackermann Principle' and is still used on the modern motor car.

His main interests, however, were publishing and helping the casualties of the many wars that were being fought in those days. For his humane efforts he received from the King of Saxony the Order of Civil Merit, but modestly declined other awards from many of the German towns that he subsequently visited.

In 1830 Rudolph Ackermann suffered an attack of paralysis, which prevented him from attending to his business. He died on 30 March 1834 in Finchley, London, and was buried in St Clement Danes, a famous London church.



Although famous as a publisher of beautiful topographical prints, Rudolph Ackermann retained his interest in coachbuilding. In 1805 he was responsible for the preparation of Lord Nelson's funeral car

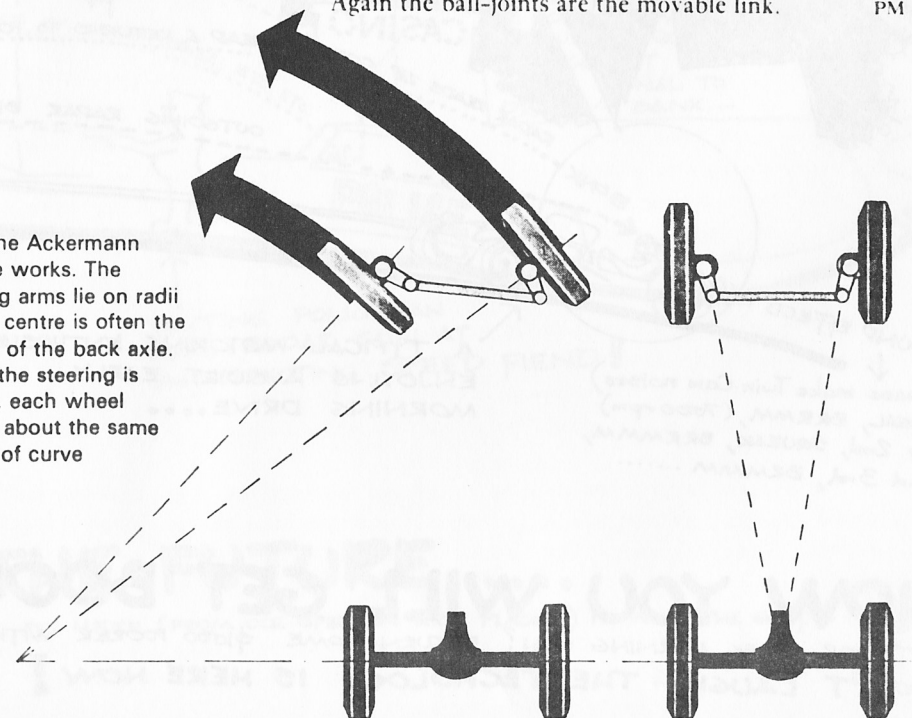
Rudolph Ackermann is credited with having devised a method of geometrically correct steering. Each front wheel is mounted on a short stub axle which pivots on the main axle. At the backs of the stub axles are arms which are inclined inwards to the rear. These arms are linked together by a rod known as the track-rod. When the track-rod is moved to the left as the vehicle is making a right turn, the right-hand front wheel moves through a larger angle than the left-hand wheel. This in practice enables the right-hand wheel to describe a smaller circle than the left-hand wheel. The opposite applies when turning left.

This type of steering has the advantage of reducing tyre scrub which would occur if the axle was pivoted at its centre and both wheels turned at the same angle.

The same principle is applied on cars using independent front suspension. The only difference is that the steering system has to be modified by levers and ball-joints to allow the front wheels to move up and down independently of each other. One method of doing this is to use two levers mounted on the body of the car. One of them is attached to the steering box and the other to an idler gear. These two levers are linked together by a track rod mounted on ball joints. Short control rods, also mounted on ball-joints, are used between the two fixed arms and the stub axles. This enables the wheels to move individually up and down without straining the steering system.

Another method of steering is by rack and pinion. Again the ball-joints are the movable link. PM

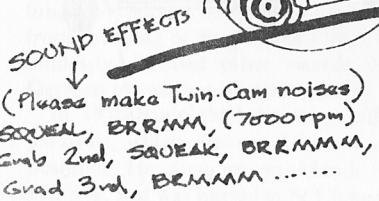
How the Ackermann linkage works. The steering arms lie on radii whose centre is often the middle of the back axle. When the steering is turned, each wheel moves about the same centre of curve



THE SIMPLEST way to arrange vehicle steering is to mount the front wheels on a straight axle which is pivoted at its centre. This, obviously, is not the most suitable method of steering a car. Nevertheless, each wheel when following a curved path should travel in a circle about the same centre and tangential to it.



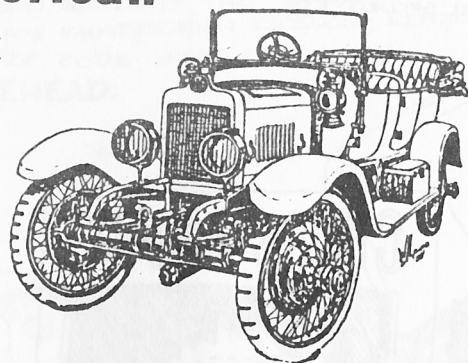
WILL BE TATOOED ON THEIR **FOREHEAD..**



OUT FOR BRISK MORNING RUN? RETURN HOME \$1000 POORER WITHOUT EVEN KNOWING IT. HERE (FROM OUR SPIES IN HIGH PLACES) IS WHAT THE GOVT. IS PLANNING  
DON'T LAUGH - THE TECHNOLOGY IS HERE NOW!

# The Australian-American FWD Hoskins Six

By W. J. LEWIS



(Bill Lewis is a research automotive historian and modelmaker who has been interested for many years in under-slung and front-drive cars.

A resident of Anaheim, California, USA, he founded the International Association of Automotive Modelers in 1951 and, 20 years later, the Riley Motor Club U.S.A., Inc., and he has contributed articles to a number of publications. Bill Lewis is a member and a director of the Society of Automotive Historians and is currently serving as the president of its Southern Californian Chapter.

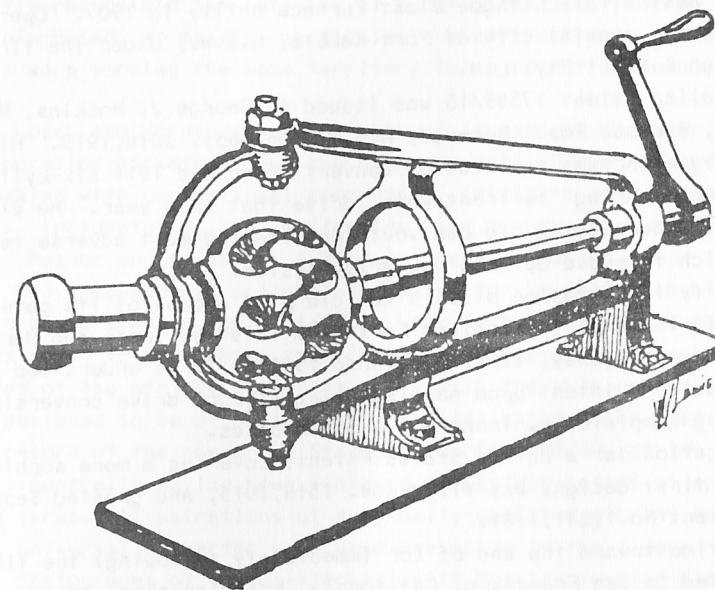
Bill Lewis has generously given approval to MOTOR MAG for the publication of this article which first appeared in the "Automobilist", the official publication of the Automobilists of the Upper Hudson Valley, Inc., in New York and we are grateful to the editor of "Automobilist", Keith Marvin, for also giving permission to reproduce this material here. -- Ed.)

The fact that the world's oldest surviving self-propelled road carriage is driven by its single front wheel may only be a coincidence. On the other hand, its builder may have been wise enough to temper public ridicule by NOT putting the cart before the horse back in 1770.

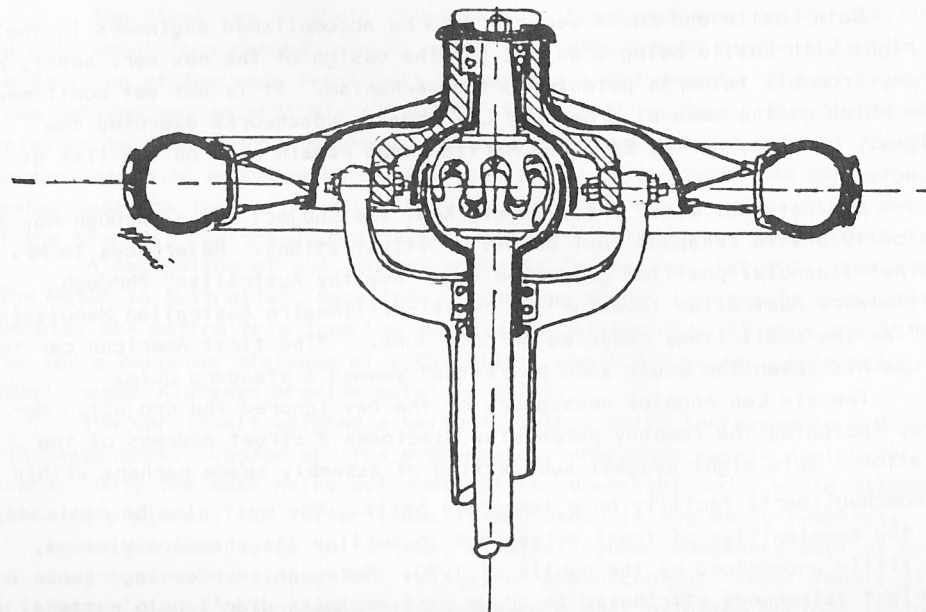
Whatever his reasons, one point remains certain, Cugnot set a thought pattern in motion destined to recycle hundreds of times down through automotive history. Front wheel drive would never lack for exponents with inventive genius toward solving its complex problems, i.e., that of simultaneously driving and steering a four-wheeled vehicle through its front hubs. The simple pin-type universal joint first served this purpose, albeit inadequately from about 1899 to 1914.

A device to provide smooth and equal revolution from driving to driven components, at maximum angle of deflection from the straight line shaft was needed. Today we call that device a constant-velocity universal joint.

George John Hoskins patented his own answer to the problem in 1915 in his native Australia. Given the grandiose title of HOSKINS-SELF CENTERING-COORDINATED-RADIO SPHERICAL-GEAR-ADAPTED TO FRONT DRIVE FOR MOTOR CARS, it embodied true constant-velocity features.



Above: G.J. Hoskins' hand-operated display model used to demonstrate the concept of his patented axle connection for front-wheel-drive cars of 1915. Below: A much simplified schematic of the prototype Hoskins front wheel showing how the entire drive and steering mechanism was housed within the oversized wheel hub. The centrelines of drive-axle, road wheel and steering pivots constantly intersected the centreline of the driving-gear-sphere at all steering angles. (All illustrations drawn by the author of this article.)





George Hoskins was the "G" of G & C Hoskins Pipe Makers and Iron Works who took over Australia's Lithgow Blast Furnace entity in 1907. Operations later moved to the coastal city of Port Kembla, N.S.W., under the firm name of Australian Iron & Steel Pty. Ltd.

Australian Patent 17569/15 was issued to George J. Hoskins, M.I.M.E., of "St. Cloud", Burwood Road, Burwood, N.S.W., on Sept. 30th, 1915. His first working prototype car was achieved by converting an old 1911 six-cylinder English Standard touring to front wheel drive that same year. He visualised that the heavy underpowered old car would provide the most adverse test conditions in which to prove-out his new drive system.

An early illustration of this vehicle plus a copy of its patent drawing is found in the book "Australian Cars from 1879" by Terry and Maree Gill-trap (Golden Press, Sydney, first published 1981). It is understood that Mr. Hoskins was more intent upon manufacturing a front drive conversion package than making complete new front drive automobiles.

Application for a United States Patent, covering a more sophisticated update of his first designs was filed Nov. 15th, 1915, and granted Sept. 25th, 1917 (U.S. Patent No. 1,241,118).

Some time toward the end of (or immediately following) the first war, Hoskins migrated to San Francisco, California, bringing along the prototype car. A representative of "Motor West" magazine was given an hour's demonstration of the car before Hoskins drove it south to Los Angeles.

"Automotive Industries" magazine of April 15th, 1920, carried this brief reference to the project: "To Build Front Drive Car -- G.J. Hoskins of New South Wales and sons L.P. Hoskins (Leslie) and E.J. Hoskins (Edwin) are at present in this country to develop a front drive for automobiles, the invention of the elder Hoskins. An experimental car is being built in Los Angeles."

Both Leslie and Edwin were said to be accomplished engineers in their own right with Leslie being credited for the design of the new car, apart, of course, from his father's patented drive mechanism. It is not yet confirmed as to which of the several prominent Los Angeles coachworks executed the designs. Don Lee, Harley Earl and Martin Leach remain high on the list of suspects.

Our national motor press barely kept the subject alive through May and June of 1920 with rehashed text devoid of illustrations. References to Mr. Hoskins' financial position graduated from "Wealthy Australian" through "Millionaire Australian Inventor" to "Multi-millionaire Australian Manufacturer" as the small items recycled through June. "The first American car to use his invention would soon be tested" seemed a standard culp.

The six Los Angeles newspapers of the day ignored the project. Nowhere, including the company pamphlets, discloses a street address of the operation. This might suggest sub-letting of assembly space perhaps within the coachbuilder's facility on a temporary basis. One must also be reminded that the complexities of front drive, not to mention its champion virtues, were little understood by the public of 1920. Moreover, condemning rumour and downright falsehoods attributed to crude past exploits didn't help matters.

Hoskins, who was indeed an astute and wealthy businessman cum inventor apparently recognised the futility of bucking heads with other would-be California-based car makers, particularly when their more conventional-type products were working the same territory in an effort to seduce investor funding.

Leach and Moreland had the bulk of investment funds in their respective corporation pockets. Even the handsome Rolls-Royce-styled Californian Six, reeking with conventional components, failed to gain needed production backing. Incidentally, the Californian used exactly the same model of six-cylinder Beaver engine as was fitted in the new Hoskins.

G.J. widened his options by leaving for England with his old British Standard conversion in tow. His sons were left to circulate the new car in what was hoped to be greener than Californian pastures. Two promotional brochures of the project dealt primarily with the axle design. The first flyer (believed to be of Australian printing) extolled the past performance and safety record of the converted Standard touring, 18,000 of its 20,000 road miles in Australia having been achieved in perfect safety at up to 48 m.p.h. on bald tyres. Illustrations of a manually-operated display model of the Hoskins universal connector were also presented in the flyer.

Photographs of the California-built Hoskins touring plus second chassis (rumoured to have eventually been roadster-bodied) first appeared in the August 15th, 1920, issue of the elusive "Motor West" magazine. The second brochure, featuring this car, apparently originated in "Motor West"'s print shop as no other published pictures of the car have been found.

By the end of August, or early September, 1920, the Hoskins brothers set out for San Francisco carrying a pair of rear seat passengers, one George J. Laurence reputedly "of Elgin Motor Co. fame" being joined by an unnamed engineer from the same Argo, Ill., firm.

The first leg of their trip toward Chicago was easy going. California road conditions ranged from 25 to 30 foot wide cement highway, Tarvia surface, or at the very least well graded and oiled gravel. Travel eastward from Oakland was an entirely different story in those days. Our transcontinental route, The Lincoln Highway, couldn't be classified as a "real road" for another seven or eight years between California's mountains and Omaha. Having made the long climb plus the very steep and dangerous eastside descent of the Sierras, the travellers faced a recently rain-soaked Nevada desert.

A recounting of the journey appeared in the Jan. 1st, 1921, issue of "The Motor in Australia" magazine. According to Mr. Laurence's comments therein, the entire trip from Los Angeles to Chicago took 12 days and 30 minutes for a recorded distance of 2,857 miles, about 225 miles longer than today's super highways provide point to point.

The car itself weighed a hefty 4,755 lbs. which increased to 6,075 lbs. with passengers, luggage and the ever-present emergency repair equipment aboard. Only the most naive automobilist (or downright fool) would attempt such a trip without the latter items in abundance in the early twenties.

Bogged down in up to two feet of alkali-gumbo somewhere east of Reno, the young Aussies must have felt twinges of homesickness. Their lonely plight certainly mirrored being gumbo-stuck somewhere east of Alice Springs in the

At one unspecified point of the journey, the rain-soaked Lincoln Highway dissolved, plunging the car into a ravine.

Despite suffering a cracked chassis in the mishap, the car's front drive was credited with saving the day. Its powered maneuverability during the sudden surprise descent, it was claimed, prevented a disastrous roll-over. Moreover, its directional variability of tractive effort enabled the car to climb back on to the route under its own power.

The Hoskins touring did eventually reach Chicago but what happened to it after that remains a mystery. It seems doubtful that George Laurence could have succeeded in persuading the financially-ailing Elgin Motor Co. into further involvement. Where did Edwin and Leslie Hoskins, the car, and perhaps Laurence go next?

Meanwhile, Hoskins senior, still in England, succeeded at getting a road test of his elderly prototype published in the Dec. 3rd, 1921, Issue of "The Autocar" magazine. Pictured as the old dark-coloured Standard touring, the text noted that the car had been rebodied in fully-enclosed saloon form before the roadtest. No pictures as yet. Other photographs, in Montagu Museum files, show the same touring painted white at one point of its stay in England.

Fully detailed specifications of the California-built Hoskins cars do not appear to have existed. We can be fairly certain that they were built to effectively demonstrate the drive system as a conversion unit. This is evidenced by the fact the engines were not turned around in the chassis in keeping with the usual front drive practice.

A power take-off, at the rear of the gearbox connected to a short drive shaft extending forward beneath the engine to a worm drive differential under the radiator. As a conversion system, it was said to be applicable to any pleasure car or light truck of comparable size. In that light, both the original drive shaft and rear axle assembly would be removed. A dead-beam rear axle would then be attached to existing rear springs and the job was done. Oddly enough, no mention was ever made toward thoughts of four-wheel-drive adaptation.

The Los Angeles-built Hoskin was by no means the first such conversion concept developed. Neither was it the first front drive car to be prototyped.

Homer Laughlin's 1917 paradox even included pinless universals in its front axle. Its V-8 engine, hampered by archaic friction transmission and double chain drive to the front hubs kept its highway sorties pretty well within the city limits.

The large, rugged and handsome Hoskins, on the other hand, logged a page into the phantom record book of front wheel drive history. One wonders if the Hoskins brothers realised that their 2857-mile trek marked a first in the long-distance testing of the constant velocity drive axle concept for front wheel drive passenger cars. Unfortunately, their effort may have also been the most arduous tour into oblivion ever accomplished in 12 days and 30 minutes. Six decades later, front wheel drive (with its smooth and snapless slip joints) became the "newly discovered" pattern of automobile manufacture throughout the world.

From "Motor Mag"



In Spring, tradition (and body chemistry) tells us, a young man's fancy turns to romance - and, if he happens to be reading this, there's a good chance that his otherwise flawless character has one severe handicap - and chances are that he will arrive at her door driving it!

So there he is, nattily attired, neatly combed, reasonably clean (except for the grease under the fingernails) and bent on an evening of tenderness and romance. He parks the Moggie where it shows off its best side (the one that the bonnet fits best AND the door LOOKS shut when it IS shut). He blips the throttle and switches off the fierce 1600 thrashing cc's, whilst mentally cursing the damn great steering wheel which defies all efforts to make a real cool impression by climbing straight out OVER the cutaway door (but really abusing himself for not having fixed the racing clearances in the hinges, and lubing the catch so it doesn't sound quite so home-made).

The Sweet Young Thing, meanwhile, has heard the exhaust raap and, breathless, peeks out the window .... "Oh, NO! - He's got the top down again."

And so another skirmish in the Battle of the Sexes begins. In one corner you have the Morganeer - powerless to resist a cool spring evening with his head (and right elbow) stuck in the icy slipstream, while in the other corner, the Sweet Young Thing, who, at the cost of much gold and many hours, has just had her hair done ..... and she needs a blast in an open car about as much as she needs a cement mixer full of owls. But she won't admit it. No, she'll sit there, glare balefully through running eyes, knowing he is completely oblivious to the fact that her hair-do is assuming the appearance of a low-rise housing project for destitute mice.

Boiled down to basics, most females hate sportscars - having once experienced TRAVELLING in one. Oh, sure, they're GREAT to be seen in - stationary, by the curb, at the beach, in mid-summer sun, OCCASIONALLY. But, mostly they're too windy, too cold, (too hot), too noisy, too fast, and mainly, too hard on the bottom, No doubt about it - your Moggie makes



a GREAT first impression, but in the long run, with the average female, you'd be better off with a Holden Traumatic, with bench seat and air-conditioning.

It's that "First impression" thing I can't figure out. I mean, she should KNOW that the cute little sportscar is going to shake her to the very roots of her being - like - she wouldn't REALLY expect HIM to be driving a putterbomb - would she? - and yet she wants to go for a ride anyway, so ...

Way back when, I had an MG TC - 20 years old, it was, and I paid 300 quid for it (and got more fun out of it than I ever had IN it!) "Oh - wow", she said, "an MG!" and before I knew it, she was clambering in the passenger seat - with the battery. It wasn't much really, but its long bonnet, sweeping mudguards really looked the part. Mind you, the only thing keeping it together was the diabolically clever application of No.8 fencing wire and faith.

Anyway, to make a long story tolerable, the young lady found to her horror, that a gay 20 mile jaunt in the sun - blistering sun - in harsh noisy rough riding MG was exactly like going to hell in a berserk egg blender - shells and all.

Nor does our Sweet Young Thing ever seem to predetermine the dynamics involved in getting out of something like a Morgan in front of a crowd - while wearing a miniskirt - until she has tried it once ... then you will cease to be a dashing young man and become henceforth a Dirty Old Man. "Only came round to help me out? Help, Hell".

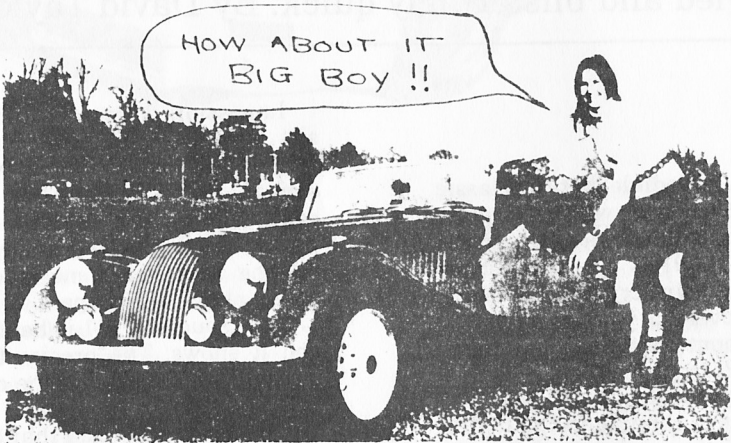
Even such simple joys as having hot black engine oil drip reassuringly onto her white slacks from the self-unwinding union behind the gauge - or having the pneumatic seat cushion deflate with quaint regularity fails to amuse, and then the last straw is her failure to appreciate why you don't put the top up - seeing as it is sooooo cooold after that show in town, (because you have neglected to tell her that it takes three stout men and true the better part of an hour - assuming the day is warm enough to render the fabric pliable - assuming you even brought it ..... AND ..... assuming you even brought the windscreen!

Yes, it takes a rather rare type of girl to mix it with the Average Morganeer, and I've found, in my travels, that she generally runs to a type. She has acquires/made a bonnet/scarf she wears to withstand gale force winds, doesn't object to sand in her drink, produces a picnic lunch at the drop of a hat, and will go anywhere and try anything once - as long as you are there. She's right there with you at 1 a.m. getting the Latest Issue ready to post, laughs and gives you a kiss when you surprise her with a pair of Webers for her birthday, and doesn't go too lemony at the suggestion that this years

holiday money would be just enough for a new paint job. She's a natural beauty, and has a pretty name, and finding her is easy - all you have to do is have your Mog in the right place (where it shows off its best side) at the right time. With the top down. In August. In the rain.

She'll be the one who wants to go for a ride!

(Borrowed from the 'Morgan Ear')



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# Pedigree Porsche

The Porsche 911, buffs agree, is the world's most quintessentially sporting sports car — sinuously styled and blisteringly quick. By David Taylor

**I**t seems incredible, but the classic Porsche 911 has been with us for over 20 years now. But then again, that's nothing. The 911's designer, Herr Doktor Ingenieur Ferdinand Porsche, is himself over 75 years old — and still bats about Bavaria in a unique, extra-long Porsche 928S.

Motoring masterpieces seem to have a habit of running in the family: Porsche's father, who founded the company in the 1930s, designed the Volkswagen Beetle. In 1950 his son made the first sports car to bear the family name — the 356 — and today Messrs Porsche turn out annually more than 45,000 fast cars for rich people, turning over some 2,500 million Deutschemarks (about \$A1250 million) in the process.

Cognoscenti insist that there has never been anything to touch the evergreen 911 — until the announcement at the last Geneva Show of Porsche's latest model, the 240kph 944 Turbo (due in Australia at the end of this year).

Now, if you have upwards of £50,000 to spend on a pedigree Porsche — well, it's so hard to decide which model to buy.

With the possible exception of Marlene Dietrich, it is doubtful whether any classier chassis than the 911 has ever more forcibly and convincingly demonstrated thoroughbred eutonic stylishness.

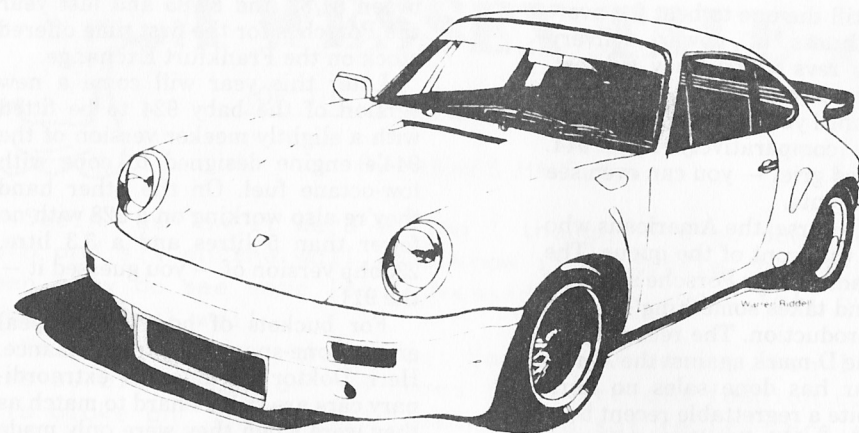
4 TOP GEAR

Impassioned Porsche converts insist that no one, not Ferrari or Mercedes-Benz, not Aston Martin or Jaguar, not Lotus or Lamborghini, can hold a sparkplug to the house of Zuffenhausen in the exacting craft of making luxuriously muscular sports cars look the classic part.

The crouching 911 is handmade — and it shows. The precise fit of the streamlined panels and the quality of finish are second to none. Realists might only wish to add that the effort required to drive the car properly has few rivals either.

It's tricky to drive a Porsche 911 at all, never mind to drive it smoothly. The engine, a 3.2-litre flat six with 231bhp to hand, is positioned right at the back and never lets you forget it. The longthrow gearbox and even longerthrow clutch can demand a stevedore's touch under pressure. The unassisted steering helps drivers to develop biceps that would do Popeye proud. Over rough surfaces, you have a rough ride. And while the ultimate limits of the 911's grip and poise are very high indeed, so is your pulse likely to be if ever you get anywhere near those limits.

Porsche are well aware of the fact that, looked at objectively, their 911 is crazily out of date. Yet they can scarcely ignore the fact that it continues to sell better than ever, nor are they likely to forget the stink which enthusiasts created when, half a dozen years ago, Porsche tentatively suggested that the model might even



give way to their far more up-to-date and refined 928s.

Diehard Porscheniks seem to see the bulkier 928s as a car to keep in reserve for their staid retirement, a car for the fainthearts who must have automatic transmission as an option or who like the extra safety margin of anti-lock brakes. All Porsche owners are fiercely loyal to the marque (over half come back for more) but 911 owners tend to be obsessively committed to the 911 experience and two-thirds of them buy another. They much prefer the gutsy growl of the boxer six at full tilt to being able to hear the in-car stereo. They relish the tease of keeping the beast tamed at the 911's extremes of performance. And they don't seem to mind a bit if the wheel obscures the instruments, if the switchgear is all over the place, or if long journeys give them back-ache. There just isn't another car with comparable feel.

What there is, or at any rate now soon will be, is one other car with a totally different feel but with much the same performance for much the same price. And that's the new turbocharged 944.

The upstart's history is quite different. It began with Porsche's ill-starred attempt in the 1970s to build a budget sports coupé on behalf of Volkswagen-Audi. The project didn't work out at all as originally intended,

but was salvaged by Porsche to become their small-fry 924. That was — and indeed still is — a cracker of a small sports car but it wasn't quite, *ahem*, proper for the Porscheniks to be seen in a car whose engine had once done service in a VW van.

So the Porsche 944 was derived, bigger, better-engined, bridging the price gap between the little nipper and its old uncle, the 911.

It is a far more civilised car to drive with an ultra-smooth 4-cylinder 2.5 litre fit to shame many sixes, deliciously snitchy box and taut, yet forgiving suspension. In its new turbocharged trim, lag-free boost is delivered from as few as 2000rpm and 60mph comes up from rest in a fraction over six seconds. That is within 0.2 seconds of the 911's time, yet achieved amidst utterly different sensations of speed.

Porsche positively drool about it. The 944 Turbo is the most powerful four-cylinder high performance sports car they've ever built and will deliver its 220bhp with or without an exhaust catalytic converter. It is also blissfully aerodynamic, they go on, with a drag factor of 0.33 which reflects in a 120kph figure on the right side of 30.

It looks terrific. And who, they wonder, can match their experience with turbocharging? The blown 911, which now goes back more than 10



years, is still the one to beat for overall smoothness of power delivery across the revs range, they suggest, and few would quibble with that. But just wait until you try its effect on the previously comparatively tame 944. And — good grief — you can even see the instruments.

It is, of course, the Americans who will be at the front of the queue. The USA is traditionally Porsche's biggest market and takes something like half of total production. The recent weakness of the D-mark against the American dollar has done sales no harm and, despite a regrettable recent bust-up with their US distributors (over a plan to make them mere agents), Porsche are still looking at a sharp upturn in American demand. There is, moreover, a flourishing business in "grey imports" — small operators bringing in cars which do not conform to US standards and selling them cheaply to the annoyance of everyone except the eager customers.

The UK is Porsche's second-best export market (Australia, by the way, is eighth). In a recent survey of British motorists, Porsche came out on top as the car they'd most like to own.

Demand is also brisk at home in Germany and, one way and another, Porsche's recent expansion has been as spectacular as have been the family rows over managing that success. Turnover all but doubled be-

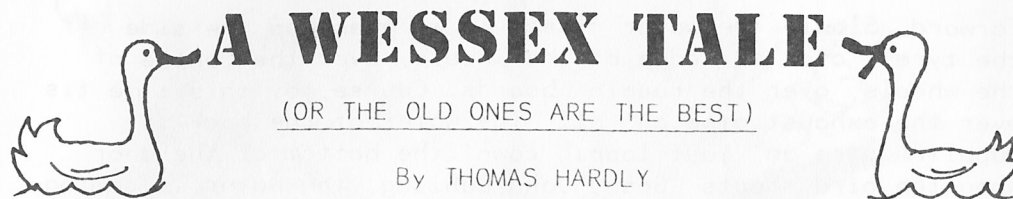
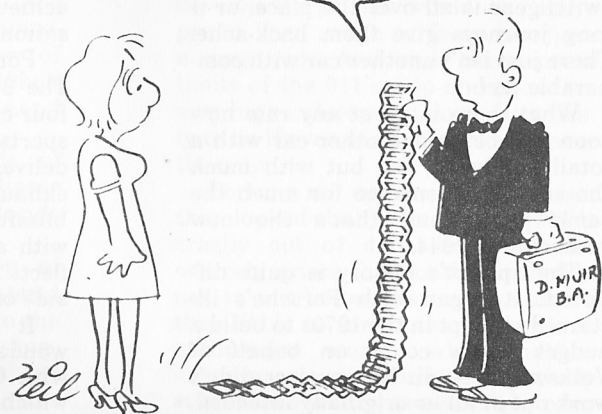
tween 81/82 and 82/83 and last year the Porsches for the first time offered stock on the Frankfurt Exchange.

Later this year will come a new version of the baby 924 to be fitted with a slightly meeker version of the 944's engine designed to cope with low-octane fuel. On the other hand they're also working on a 928 with no fewer than 5 litres and a 3.3 litre, 235bhp version of — you guessed it — the 911.

For buckets of bodywork appeal and bone-snapping performance, Herr Doktor Ferdinand's extraordinary cars are still as hard to match as they were when they were only made by the handful. Fortunately for enthusiasts, neither the cars nor their septuagenarian inspiration show any signs of slowing up.

*David Taylor is a motoring buff who writes regularly for Punch and also British Airways High Life, which first published this article.*

These are to finance the spare parts for my Porsche



(OR THE OLD ONES ARE THE BEST)

By THOMAS HARDLY

Seein' us 'ow it were Spring I thought I'd go down to the ford and sit on the wall. You know it do tickle they tourists when they do see some local dressed in his smock fall back'—ards off thik wall.

Well, I were sat there last Sat'day af'ernoon when I 'ears this burblin sound an' up comes this 'ere old fashion car with this bloke an' this fancy lookin' bird sat in it. 'Ere she were a crackin' bit of stuff mind. It bein' a hot May day 'er weren't wearin' enough to cover the fact as 'ow she could've put George's milkers to shame. 'E looked a bit of a twit though. You've seen the sort, no chin, suade patches on 'is jumper an' all that. Bet 'e got a pair a green wellies too, an' 'e never shovelled ...in 'is life. Funny car too it were, 'ad no roof so it must've been pretty old.

"I say my man" 'e says to I. "Are you the village idiot?"

'B.....r I' I thinks, 'I don't like this 'un at all'.

"I was" say I, quick as a flash, "till you got 'ere".

"Oh John" chirps the bird, "isn't he sweet?"

"What kind of motor be that squire?" says I.

"This my man," 'there 'e goes again' thought I, 'I'll 'ave 'e later, b....r I down dead if I don't'.

"This my man is a Morgan Plus Eight".

Well 'e must've thought I were proper stupid, any damn fool knows as 'ow a Morgan be one of they spindly little things with 3 wheels an' a motor bike engine stuck on the front. You know the sort what used to go in for they trials before the war, when the lads an' I used to pour oil an' that on they 'ills what they did try to get up. Mind you they was pretty good all the same.

"What I wish to know is this" says Mr. Toffee-nose, is this the road to the Greyhound at Staple Fitzpaine and how deep is the ford? You must understand that I have just spent six months cleaning the car and as this is the first time I have driven it this year I do not wish to get it wet".

"Well" says I, "tis the right road for the Greyhound an' the ford is about 4 inches".

"Did you hear that Samantha, the bumpkin says the ford's only 4 inches deep. If I drive slowly we will only get the tyres wet".

'That bloody does ti' I thought.

Well Mr. Toffee-nose starts up 'is car an' slowly drives



forward. Slowly the water rises, up it goes, up the side of the tyres, over the edge of the wheels, over the centre of the wheels, over the runnin' boards. Course, by this time tis over the exhaust pipe an' all. The water at the back is bubblin' nice an' just lappin' rown' the bottom of the door when the bird shouts "Gosh, John Dahling, the water is coming in". At that moment the motor stalls, an' there they be, stuck in the middle of the ford.

Mr. Toffee-nose climbs out of 'is seat an' sits on the back of the car. So does the bird but there seems to be some problem about 'er shoes scratchin' the paint.

"Look here my man" 'e says turning to face I. "You said the ford was only 4 inches deep".

"Well" says I, "that's 'ow far it comes up me ducks".

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