NOVEMBER 14 1985 80p

AUTOSPORT

UNSER'S TREBLE

MIAMI GP ACTION ◆ TOKYO SHOW ◆ NEW MAZDA RX-7

REFLECTIONS ON ADELAIDE ◆ LANCIA'S RAC TESTING

November 14,1985

Vol 101 No 7

AUTOSPORT

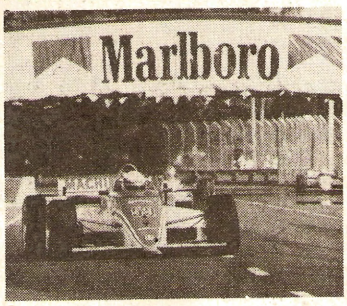
PIT & PADDOCK 4

All the international racing news — Ligier to have Renault engines for 1986 — Birmingham road race on — Brabham-Honda Indycar engine to run in '86 — March-BMW IMSA GTP contender — New Silverstone role for Jimmy Brown.

COMMENT 10

Our views on a specific subject — Your views on some others — A look back at the sporting scene 10, 20, and 30 years ago with *Then as Now?* — And a weekly giggle with *Catchpole*.

TAMIAMI INDYCAR 12



The final confrontation, and while Danny Sullivan took the chequered flag, Gordon Kirby saw Al Unser Sr steal the championship on the very last lap.

FUJI GROUP A 18

The Volvo steamroller moved to Japan, took on the best of the rest, and walked off with a 1-2 result. Joe Saward was our man in the Land of the Rising Sun.

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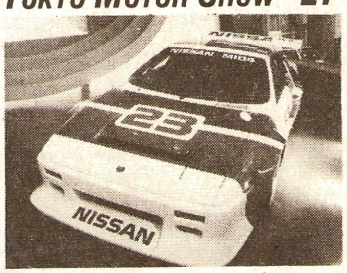
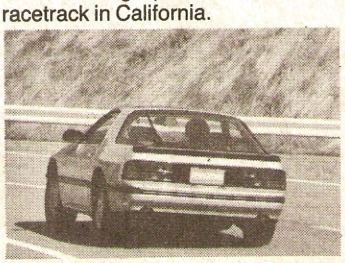
TOKYO MOTOR SHOW 27



The latest Japanese technology on display eletronically controlled everything! Mike McCarthy tried to take some of it in, but was left puzzling over such typically funny Japanese names as the Mazda Cosmo Genteel (with its downmarket brother, the Yobbo?).

MAZDA RX-7 33

The brand new sports car from Mazda, put to the test in Japan by McCarthy-san who also managed a few fun-loving laps at the Riverside racetrack in California.



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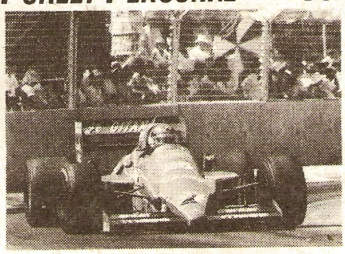

Maurice Hamilton takes a quiet look back at the inaugural FISA World Championship Grand Prix in Australia, a highly popular addition to the series, and one which looks set for the future.

OFF-ROAD RACING 42

Cross country racing may appear one of the wilder forms of motor sport, but on a recent American trip, Martin Holmes discovered that it is also a highly sophisticated world.

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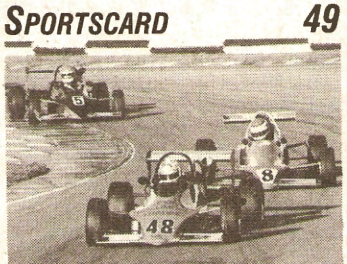

Nakajima trounces Suzuka F2 field — Argentinian F2 double — Coyne breaks clear in *Grandstand* series — Ayles scoops Brands honours — Rallying from Argentina — Chieftain garland to Moore — Patterson on top at Kirkistown.

FRONT COVER

Al Unser Sr's Penske Racing March-Cosworth 85C snatched fourth place — and the Indycar Championship from Al Jr in Miami at the weekend. Below: Father and son celebrate after the race.

NEXT WEEK

Free with next week's issue is our 64 page guide to the Lombard RAC Rally plus a detailed map and Stagecard to help you follow the event — Plus our review of the European Touring Car Championship — A look back at Andy Rouse's fourth success in the Trimoco British Saloon Car series — Group test of some of the leading Formula 4 cars by Tiff Needell — *Road Car* — Plus all our usual news and features*.

*These items correct at presstime

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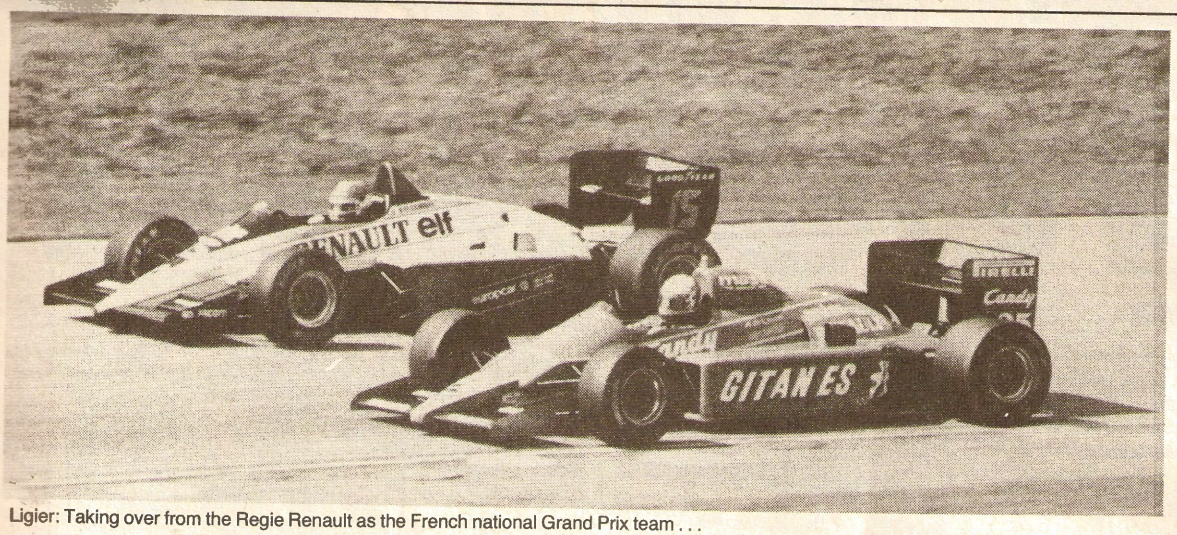


Ligier: Taking over from the Regie Renault as the French national Grand Prix team . . .

State secures Renault engines for Ligier team

Guy Ligier's Formula 1 team has been able to renew its arrangement with Renault for the supply of engines for the 1986 Grand Prix season, thanks to the personal intervention of the French Minister of Sport.

M Alain Calmat had been kept informed of the team's difficulties and, just when it seemed that the re-emergent Ligier team would be compelled to switch to Alfa Romeo engines next season, he secured the deal by making substantial funds available. The new deal between the privateer Ligier organisation and the state-owned car manufacturer is to be subsidised by a £885,000 cash contribution from the national sports development agency.

This financial input and an improved offer on engine price from Renault has allowed Ligier to continue to use the French V6 engines, alongside Lotus and Tyrrell.

In principle, the money can be made available to the Ligier team not only in 1986 but also in 1987-88. However, the move has provoked substantial opposition in French sporting circles.

M Nelson Paillou of the CNOSF — the national Olympic committee — is said to be furious that the cash has been authorised without consultation with his organisation, and several sporting federations have also expressed their disapproval.

It has not yet been decided exactly how the money will be paid to Ligier, although this might be done via Loto, the state lottery. Loto pulled out of sponsorship of the team at the end of 1984 when its involvement was compromised by a move into motorsports gambling by its sports subsidiary, Loto Sportive. However, it has now pulled out of this area and will resume its sponsorship of the team in 1986.

Guy Ligier himself, meanwhile, does not see the move as representing the ideal longterm solution to his engine supply problems, and said in Paris last week that he is looking at the possibility of producing his own power units at some stage in the future. He also said that he believed that, three years from now, World Champion Alain Prost would be driving for his team, on the expiry of his Marlboro-McLaren contract.

Prost has said, incidentally, that he would enjoy driving once more for a French team.

Meanwhile Jean Sage, director of the now defunct Renault Formula 1 team, has confirmed that the company will remain highly active in its new role as Grand Prix engine supplier. "Our engine development is definitely continuing," said Sage, "and the decision was reached a few weeks ago. Next year's unit will not be an entirely new engine, but the existing V6 with revised cylinder heads and a lot of other new items.

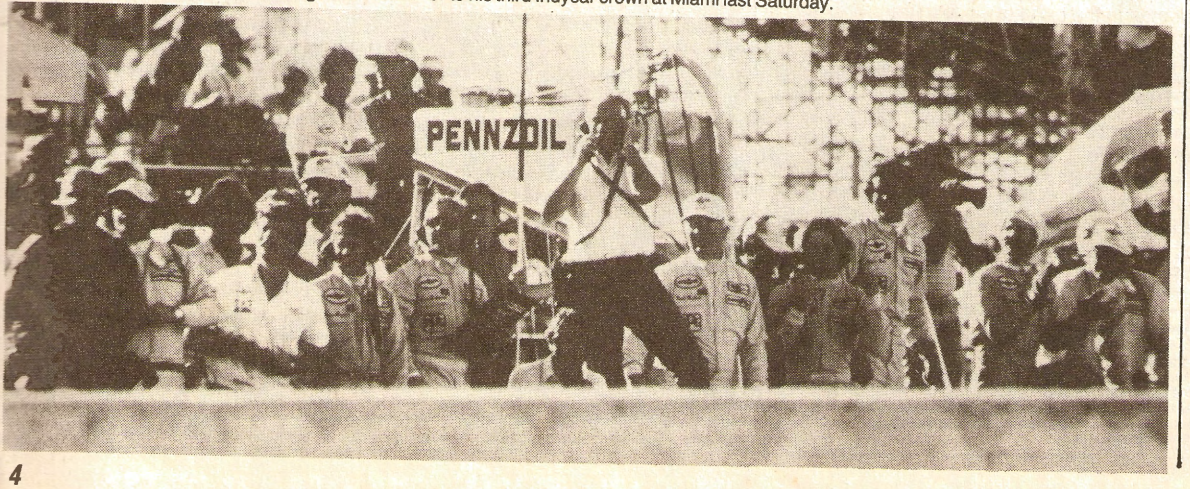
"We are aware that some new engines — especially the Japanese one — have had much more power than ours this season, and our team is now working hard to combat the power outputs of those engines," he continued.

Indycar champion has no drive!

After winnng the CART Championship at Miami last weekend Al Unser Sr was still not able to report any plans to defend his title in 1986.

"I don't care, something will come up. This time last year I was only going to do the three 500 milers for Penske and ended up doing most of the season," said the oldest man to ever win the Indycar series. Unser drove the Penske March as a stand-in driver for the still recovering Rick Mears.

Roger Penske and his CART team urge on Al Unser Sr to his third Indycar crown at Miami last Saturday.



Montreal F3000?

A question mark over the future of the Canadian Grand Prix, on the Circuit Gilles Villeneuve in Montreal, has been laid by Roger Dore, the promotional executive of the Labatt's brewery company which promotes the event on the Isle de Notre Dame.

Mr Dore said in Canada last weekend that the future of the race was being placed in jeopardy by the refusal of the city authorities to reply to a Labatt's proposal to stage an additional fixture at the venue, for Formula 3000 cars.

He said that Labatt's had to have the F3000 event so as to defray costs, thus lessening the company's financial burden imposed by the Grand Prix itself.

The Labatt's statement is not being taken too seriously by F1 insiders, who see it as a move to get the city administration to act with more urgency with regard to the F3000 plans. The Canadian GP is confidently expected to take place as scheduled in June 1986, to be followed by a round of the newly reconstituted F3000 International series later in the year.

MTR looks at F3000

Murray Taylor is the latest Formula 3 entrant to be taking a serious look at getting an F3000 programme going for next year. "I have been looking at it very closely and have discussed it with March and Bernie Ecclestone, both of whom were very helpful and enthusiastic.

"I am talking to Mario Hytten and Gary Evans about driving for me. Mario ran with us in 1984 and his year's experience of the formula would be invaluable, while Gary has done a great job for us in F3 this year.

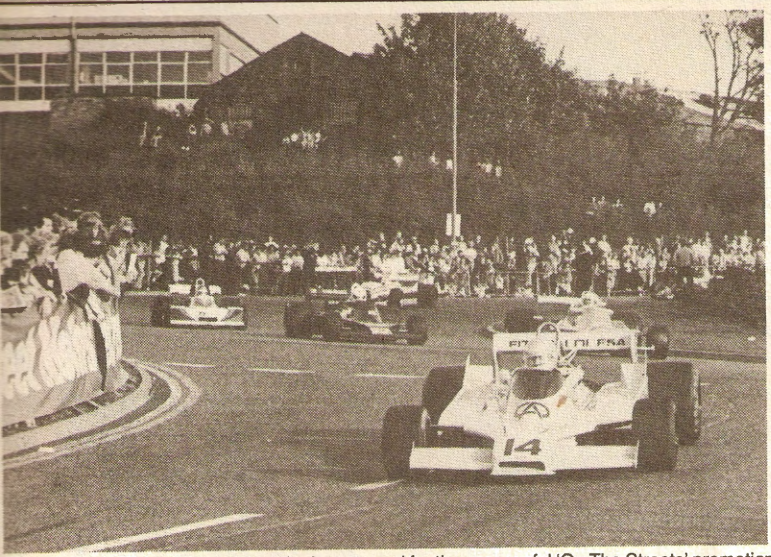
"I would only consider running March cars. I was very impressed with their new facilities and their professional attitude towards the formula and customers's requirements."

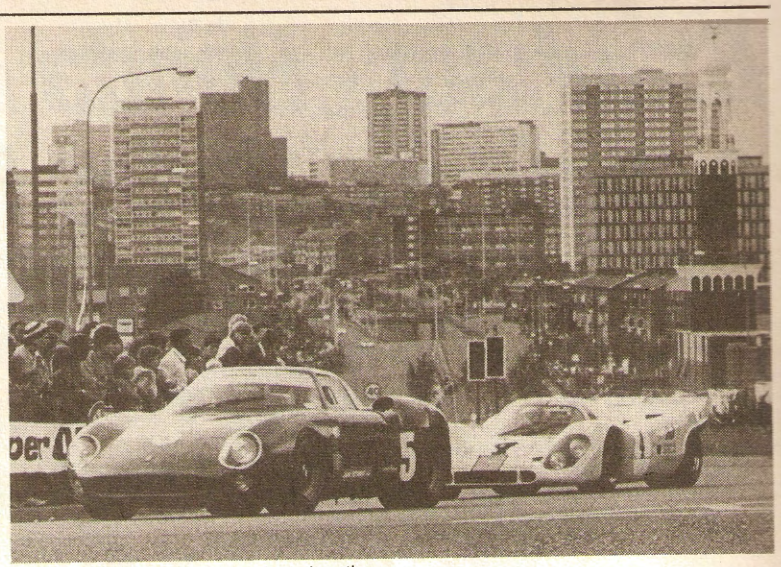
To accommodate his F3000 plans Taylor is considering dropping his Formula Ford team but he will continue to field an F3 car from his Silverstone workshop. "It is probable that we shall run one F3 car, hopefully for a driver who is capable of winning the championship," said the New Zealander.

No Indycar for Forsyth

Despite the excellent showing of Jan Lammers in Miami last weekend it is almost certain that the Forsyth CART team is being disbanded. Most of the crew members, led by Barry Green, have already joined the designated March 'houseteam' Kraco, and it seems that the Chicago-based outfit, which shot to fame with Teo Fabi in 1983, is about to close shop.

Lammers is said to have 1986 backing from Satellite Transmission Services and has been talking with Eagle's Dan Gurney.





The Super Prix circuit is based on the layout used for the successful 'On The Streets' promotion in October, 1984, with relatively minor alterations.

Birmingham Super Prix under way

The first racing through the city streets of Birmingham is virtually certain to take place next August, and there is a possibility that the main event of a busy meeting will be a round of the Formula 3000 International series.

The legislation enabling the Birmingham City Council to stage the event — the Birmingham City Council Bill — has recently been granted Royal Assent and is now law. The circuit has been formerly inspected by Robert Langford of the RAC MSA and the FISA Safety Commission, who asked for minor alterations to the layout that has been so successfully used for the 'On The Streets' promotions recently. The Council's engineers have now actually begun the roadworks necessary to make these alterations.

The Council has also entered into negotiations with the BRSCC, which will very likely act as on-track organisers of the race meeting.

Discussions have also taken place between the Council representatives and John Webb of Motor Circuit Developments. It is believed that the Council seeks the benefit of his promotional expertise and is also looking to put on one of the MCD-promoted Thundersports events, perhaps as the main race.

The subject of the Birmingham Super Prix, however, has been raised at a meeting of the Formula 3000 entrants and there is a possibility that the spectacular single-seaters might race on the two-mile downtown circuit. The Council is also interested in putting on a race for the Historic Grand Prix Cars Association, and other supporting events are likely to be for saloon and Formula Ford cars.

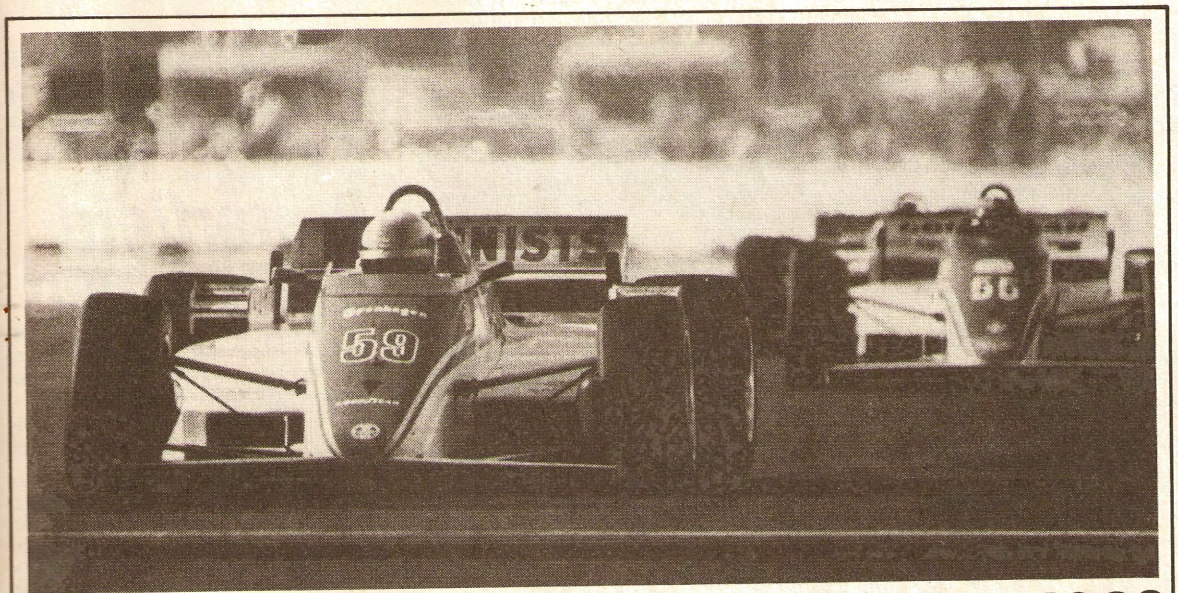
The Birmingham City Council itself is making the financial commitment to the event and is acting as the promoter. If all its plans come together, the meeting will take place (as specified in the Act) on Aug 24-25, the Bank Holiday weekend.

New Sigma for Le Mans 1987

A Japanese team, Sigma Automotive, is building an all-new Group C sportscar to take a Toyota turbo engine, destined for its first outing in the Sportscar World Championship towards the end of next season.

Shin Kato's team, based in Aichiken, commissioned the former Dome designer, Masao Ono, to pen the new car, which will be finished next June. The chassis will be made from composite materials and we understand that the team will be in line for the latest Toyota engine development as and when it becomes available.

The Sigma-Toyota is destined not only for the the Japanese national championship but also for selected FIA events and, although Le Mans is not on the team's 1986 schedule, the plan is to do the 24 Hours in 1987.



Keegan: full CART programme in '86?

The former Aurora British Formula 1 Champion, Rupert Keegan is bidding to put together a season-long deal so as to attempt a full season of CART Indycar racing in the USA next year. Pictured leading team mate Josele Garza in the two Machinists Union March-Cosworth cars, Keegan made his third Indycar start last weekend at Miami, and finished in the top 10.

Evans — F3000 taster

BS tests F3 drivers

BS Automotive had their F3000 Championship winning March out at Silverstone last week, giving Formula 3 men Gerrit van Kouwen and Gary Evans their first taste of DFV motivation.

"They were both suitably impressed with the power," reported team director Alan Jakeman, "and they both drove very well on what was a horrible day. It was colder than at the snowed off Nürburgring meeting. We were well pleased with their information and feedback and they drove sensibly, smoothly and carefully — as the day warranted."

Incidentally, a typographical error in last week's issue discredited Lamberto Leoni, who did 63s round Donington a couple of weeks ago in the BS car, not 68s as printed.

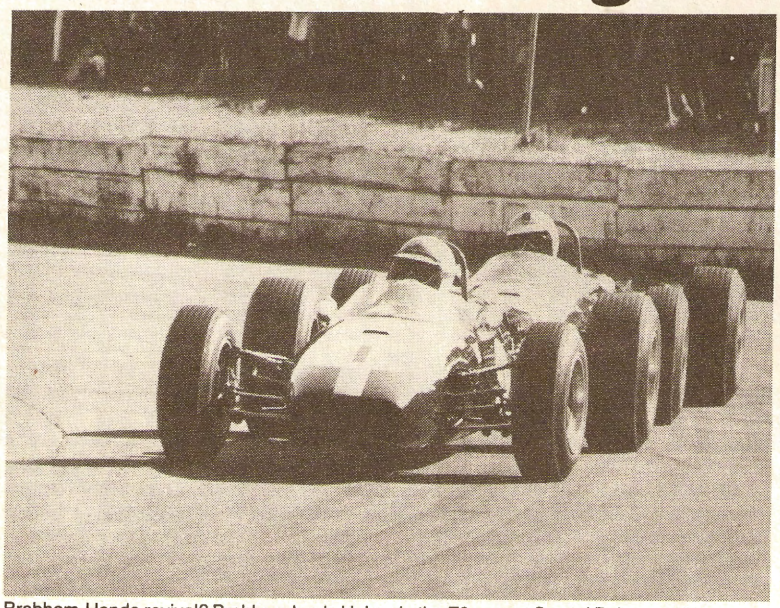
Brabham - Honda Indycar engine for Galles Racing

The Honda Indycar engine project has been revived and will appear in 1986. Back in August the original plan for a Ralt chassis to be powered by the John Judd developed V8 was formally shelved in favour of Honda concentrating their efforts in F1 and developing an F3000 engine. However, the engine is now destined to appear in a Galles Racing Lola and testing will begin within the next few weeks.

Our American editor reports that this plan was officially confirmed at Miami last weekend and that Geoff Brabham (dad Sir Jack was formerly in partnership with Tauranac and Judd) will have exclusive use of the engine which will be known as a Brabham-Honda (just like those all conquering F2 cars in 1966).

No other details of the engine are known although rumour has it that it is 30lbs lighter than a Cosworth DFX and three inches shorter.

There is no news either of the Honda F3000 power plant "When Honda produce an F3000 engine, which I am sure they will, I will get it," was all Ron Tauranac was prepared to admit to early this week.



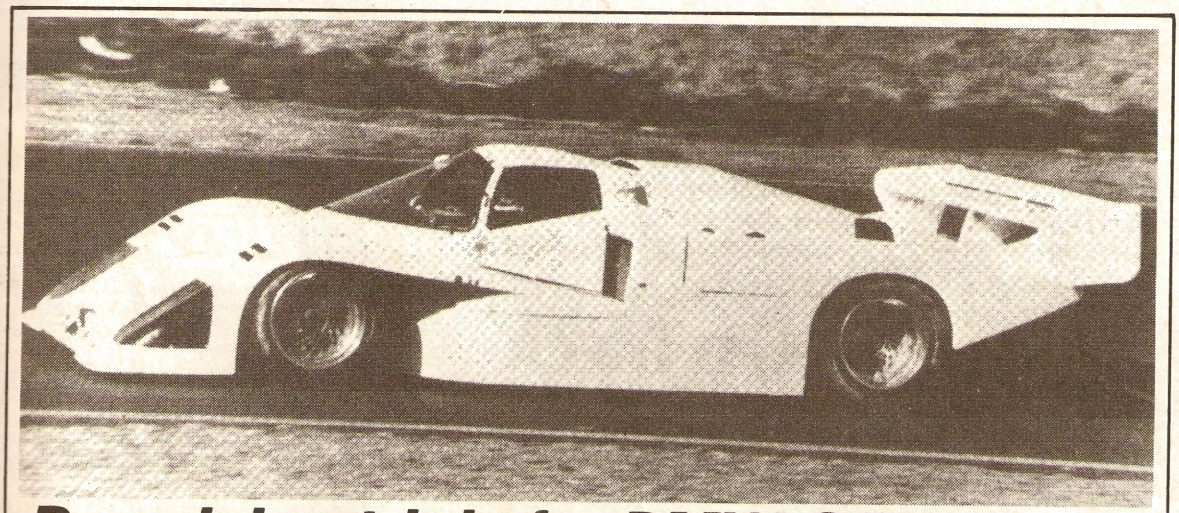
Brabham-Honda revival? Brabham leads Hulme in the F2 cars at Crystal Palace, 1966.

Jordan delighted with Spence on first F3000 test session

Eddie Jordan Racing were extremely impressed with Russell Spence during his F3000 test (pictured in these columns last week) at Silverstone. There is no official word on the Yorkshireman's firm plans for next year but EJR's Mike Collier commented that, "he is the sort of driver we want. He is very quick and he wants to go quickly all the time."

It was a very cold and windy day at the circuit last Tuesday but Spence was able to lap in 1m 18.8s, a second quicker than the car's resident championship driver Thierry Tassin had managed on a similar day. "Anything under 1m 20s was good last week," continued Collier. "There was a howling gale and puddles all round the place, plus we were using the hardest Bridgestone tyre we have had all year. We were definitely impressed."

Spence was due to run the car again this Tuesday although snow was falling at the circuit on Monday. "We are doing some engine development work for John Nicholson, and now Russell has established a benchmark we want to stick with him to get consistent information."



Promising trials for BMW GTP car

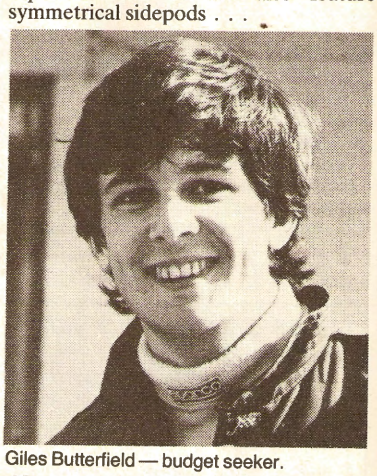
Pictured during testing at Sears Point Raceway in California, the new BMW GTP sportscar has been achieving very promising lap times in the hands of John Watson, David Hobbs and Tom Klausler. Based around a modified 85G monocoque from March Engineering, the new car is powered by a four-cylinder, 2.1-litre BMW engine which has been tested in both single- and double-turbo configuration. At Sears Point, it was able to lap within 2secs of the qualifying record although on race tyres. Being developed by McLaren Engines in Detroit, the 700bhp BMW is expected to make its debut at Daytona in the Dec 01 IMSA finale, driven by Hobbs and Watson.

Ron Tauranac — another busy winter.

F3 boom continues

Following this year's extremely healthy Formula 3 fields, next year looks equally promising. The barometer is always the Ralt Cars order book, and Ron Tauranac reckoned this week that he had about 50 potential sales up to now with deposits taken for at least half of them.

As usual the new car will be an update of the previous year's model and many of the modifications have already been tested prior to being productionised. "The new car will feature an entirely new rear end, primarily to improve the aerodynamics of the flat bottom design which was something of an unknown quantity to us at the start of this year," reported Ron. It will also feature symmetrical sidepods . . .



Giles Butterfield — budget seeker.

Butterfield determined

The very promising Giles Butterfield, winner of no fewer than five Marlboro British F3 Class B laurels this season, looks likely to join Irishman Mark Galvin in Alan Docking's top class line-up next year, following some excellent testing performances in Galvin's Ralt RT30.

The former superkart racer, who dived headlong into F3 with very little car experience and a small, but viable budget this season, lapped consistently in the mid-1m 27secs bracket on the Silverstone GP circuit a fortnight ago, impressing his team enormously. "I've still got to find the finance for 1986, but I am confident that we will be fully competitive when we do," grinned the Londoner recently. "Alan has been fantastic with his encouragement, and has made the RT30 available to me, so we have every chance of getting a proper deal together."

IMSA champion Jones goes F3000 with Onyx

John Jones, the 19-year-old 1985 IMSA GTO Champion, has signed to drive for the Onyx works March F3000 team next year.

Jones, Canadian FF2000 champion in 1983-4, flew to England early last week to agree terms with Onyx directors Mike Earle and Joe Chamberlain. The deal completed, John started his winter test programme a day later at Snetterton.

Onyx were impressed with the Ontario lad during the Curacao Grand Prix when he completed a daunting debut in Formula 3000 finishing eighth without once damaging the car.

"He is a quick learner and has tremendous car control" said Mike Earle, "and we feel he will be a great asset to the team next year."

Jones, who has one more race to do in his Motorcraft Mercury Capri in America this year, is planning to spend this month in England testing an Onyx 85B and will return early in the new year to drive the prototype 86B. "It is a great challenge for me to join Onyx at this stage of my career and I am under no illusions about the task ahead. For the moment I will be happy to get to the stage when Emanuele (Pirro) and Alain (Ferté) stop volunteering advice!"

Jones has had a superb year in his Mercury Capri, but now looks back to single seaters.

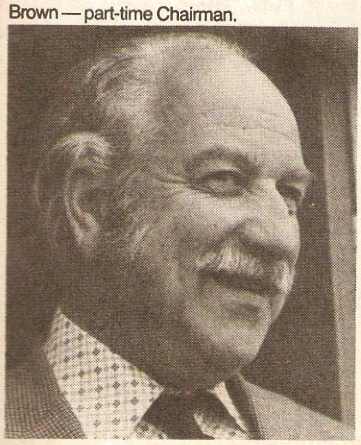
New Silverstone role for Brown

The 1985 World Endurance Champion, Derek Bell played a starring role during last Friday's well attended BRDC Dinner & Dance at the London Hilton Hotel. Derek not only presented the club's awards, but also stood back to receive no fewer than four of them himself — including the coveted BRDC Gold Star.

The highlight of an enjoyable evening was the tribute paid to Jimmy Brown, who has now retired from his post of Chief Executive of the BRDC and Managing Director of its subsidiary companies, including Silverstone Circuits Ltd. Jimmy, who was 65 in September, has worked at Silverstone since July 1948, and has been the driving force behind every British Grand Prix held there ever since. He will continue to work for the club as Chairman of the companies, acting on a part-time executive basis. In this role he takes over from Jack Sears, who generously stood down so as to make the job available for Jimmy.

Derek Bell's Gold Star was earned on a points basis (to the most successful BRDC member competing in International races) and reflects his successful season not only in Group C, but also in the IMSA GT series in the USA. Derek also won the Gold Star last year. On Friday he also received the Richard Seaman, Fairfield and Earl Howe Trophies.

Brown — part-time Chairman.



Bell might also have won the Silverstone-Le Mans Challenge Trophy, but lost out on the tie-decider (individual fastest laps) to his factory Porsche team mate, Hans-Joachim Stuck. Alain Bertaut of the ACO accepted the trophy on behalf of the German driver.

On behalf of Nigel Mansell, who was still in Australia, John Thorburn received the Graham Hill Trophy from Bette Hill, while Ron Dennis accepted the Wakefield Trophy on behalf of Alain Prost, and Alan Howe the Bruce McLaren Trophy on behalf of Mike Thackwell.

The BRDC championship trophies were presented to the series winners Mauricio Gugelmin (Marlboro British Formula 3), Carlton Tingling (F3 B-class), Mark Blundell (Esso Formula Ford 1600), Paul Gibson (Trimoco Clubmans Sports), Paul Taft (BCA Metros) and James Kaye (Uniroyal Production Saloons). The full list of trophy winners:

JOHN COBB TROPHY. To the British driver, racing a British car, who has achieved success or successes of an outstanding character. **Tom Walkinshaw** (for the second year running) for his performance in the European Touring Car Championship.

JOHNNY WAKEFIELD TROPHY. To the driver who has established the fastest lap on the Silverstone Grand Prix circuit. **Alain Prost** for his 1:09.886 (151.035mph) during the Marlboro British Grand Prix.

GRAHAM HILL TROPHY. To the most outstanding British Formula 1 driver of the season. **Nigel Mansell**, for winning the European and South African Grands Prix for Williams-Honda.

BRUCE McLAREN TROPHY. To the Commonwealth driver who has established the most meritorious performance(s) in International motor racing. **Mike Thackwell** for finishing runner-up in the European Formula 3000 Championship with the works Bridgestone Ralt team.

ERA CLUB TROPHY. To the British driver(s), racing a British car, who has established the most meritorious performance of the year outside the United Kingdom. **Gordon Spice** and **Raymond Bellm** for winning the World Endurance Championship of Group C2 drivers with the Spice Engineering team.

FAIRFIELD TROPHY. To the BRDC member who has established the most outstanding performance of the season. **Derek Bell** for winning the World Endurance Championship of Drivers, with the Rothmans Porsche team.

EARL HOWE TROPHY. To the British driver who has established the most meritorious performance in the USA. **Derek Bell** for his successes in the Camel IMSA GT Championship with the Lowenbrau Porsche 962.

WOOLF BARNATO TROPHY. To the British driver(s), racing a British car, scoring the highest finishing position in the Le Mans 24 Hours. **Tiff Needell, Steve O'Rourke** and **Nick Faure**, who finished 11th in the Emka Aston Martin.

SILVERSTONE-LE MANS CHALLENGE TROPHY. To the driver who has achieved the best combination of results in the Silverstone 1000 and Le Mans 24 hours sportscar races, **Hans-Joachim Stuck** (second at Silverstone, third at Le Mans).

NIGEL MOORES TROPHY. To the private entrant who has established the most meritorious performance(s) in International motor racing. **Spice Engineering** (for the second successive year) for winning the World Endurance Championship of Group C2 Teams.

CHRIS BRISTOW TROPHY I. To the driver who has established the fastest lap on the Silverstone Club circuit. **John Brindley** in his March 821.

CHRIS BRISTOW TROPHY II. To the most promising driver to have raced on the Silverstone Club circuit. **Andy Wallace**, who was runner-up in the Marlboro British Formula 3 Championship with Swallow Racing Reynard-VW.

BRDC GOLD STAR. To the BRDC member who has scored the highest number of points in International races on the Gold Star marking system. **Derek Bell.**

BRDC SILVER STAR. To the BRDC member who has scored the highest number of points in International races in Great Britain on the Silver Star marking system. **Sean Walker.**

RICHARD SEAMAN TROPHY. To the British driver who has scored the highest number of points in International foreign races on the Gold Star marking system. **Derek Bell.**

CROMPTON DRIVER OF THE YEAR. Paul Taft.

Borgudd in at Macau

Slim Borgudd, who took pole position for last year's F3 Macau GP, is a late addition to this year's entry list. The Swede replaces Pierre Petit, whose car was recently destroyed at Paul Ricard, and will again drive one of Chuck McCarty's Ralts.

The TOMS Toyota team have withdrawn their entry because all their drivers are committed to a sports car race and they will be replaced by another Japanese F3 national championship team.

Peters — F3 break at last?

Three Ralts from Rowe?

Mike Rowe Racing is planning a three-car assault on next year's British F3 championship, and is helping to seek the finance for Mark Peters to run one of two new Ralt chassis, which the team has already ordered. "We are very keen to run Mark," said Rowe on Monday, "and things are looking quite promising at this early stage."

Rowe's team, which prepared and ran Chuck McCarty's Systime Racing for Britain Ralt, with Andrew Gilbert-Scott up in the latter stages of this season, is open to negotiations for the other A class seat, while Mike's partner Ian Khan will continue to fly the Hounslow equipe's colours in Class B.

Brands trial for Danner

F3000 Champion Christian Danner was at Brands Hatch last week driving Bertram Schafer's works VW-backed Ralt F3 car in preparation for the Macau Grand Prix.

"It's very different, and the power is a joke," said the German who had never previously driven an F3 car. "It is going to take some getting used to, but I am glad I've had a few laps before going."

Danner has no firm employment for 1986 as yet. He has talked with Zakspeed about the possibility of driving a second car in the European GPs and is apparently on the two-man short list (with Gerhard Berger) for the Toleman-BMW vacancy. "I am just talking to everybody I can right now, to see what kind of programme I can put together either in Europe or America," said Christian this week.

The evocative Supersports cars will become a familiar sight at Grands Prix next year.

Supersports to support four Grands Prix in 1986

The International Supersports series, which caters for the sensational sports racing cars of the 1964-71 era, will grow in stature next year, with four of its six fixtures supporting World Championship Grands Prix on the Continent. Richard Attwood, one of the prime movers within the Supersports organisation (with David Piper and Mike Knight) won the splendid, if very wet, encounter at the re-scheduled Belgian GP meeting in September with his Porsche 917. Reaction to the big field of G6 and G7 cars was tremendous.

In addition to the dates at GP meetings (to be officially announced shortly, with big sponsorship details), Supersports will also star on Sweden's first street race programme, at Nörköping next May.

Gurney for CART board

CART held their annual Board elections at Miami last Friday, the 29 members voting in their seven man ruling committee.

A somewhat shock outcome was that Jim Truman, the tough, vociferous boss of the Truesports team and owner of the Elkhart Lake circuit, was not re-elected. In his place comes Dan Gurney, the most fervent of US patriots, who is actively campaigning to keep the cost of the series under control.

ALAN PEER

Ford saloon car racing stalwart Alan Peer passed away last month, following a long illness borne with courage. Peer, 52, spent all his working life with Ford Motor Company's Research and Engineering centre at Dunton, thus he campaigned a number of the company's products with distinction, until his retirement from competition in 1969.

Peer started with sprints and hillclimbs in the late 1950s, and he graduated through Anglia 105Es, in various guises to one of the first Escorts. Alan was very active on the club and national saloon scenes, scoring many class and outright race wins, as well as championship successes with the East Anglian Racing Team.

In recent years, Peer had devoted much of his spare time to the restoration of a vintage Alvis, and also maintained a keen interest in the Ferrari marque. To his wife Jean, his family and friends, AUTOSPORT extends its sincere condolences.

Alan Peer scored many wins in his driving career with his East Anglian Racing Team Anglias.

BRIEFLY

■ After a disappointing season with Eagle, Tom Sneva was anxiously looking around Miami last week for a team to run him in an English chassis next year. There is talk that he might join Arie Luyendyk in the Provimi Veal team providing they can attract some outside sponsorship.

■ Emerson Fittipaldi will be the Marlboro CART driver next year in the Patrick Racing 7-11 March team. Long time Patrick team sponsor STP is on the move reportedly to Kraco to support Mike Andretti. The second Patrick driver will be Kevin Cogan.

■ John Mecom, wealthy Texan oilman who backed Jackie Stewart and Graham Hill at Indy in the mid-60s, is reportedly joining the ambitious Galles Racing Team as a partner and may take his protege Michael Roe along with him to join Geoff Brabham.

■ After another strong showing in the Valvoline Galles March at Miami last weekend, Roberto Moreno said that he would like to do a full season of CART next year but that he had F3000 and Japanese F2 offers to fall back on.

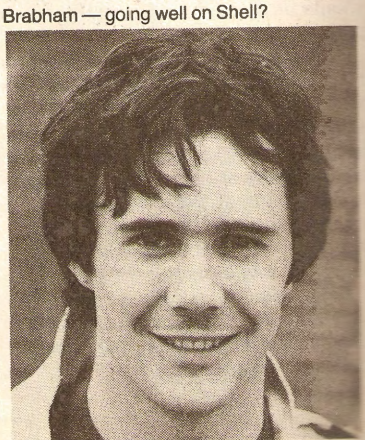
■ The Mosport Park circuit owners in Canada are working hard to make a number of safety improvements before the onset of the heavy winter snow. Massive tyre barriers are being erected at Turns 2, 3, 4 and 8, and more work will be carried out after the springtime thaw. Subject to FISA inspection, Mosport will again be the scene of the Canadian round of the Sportscar World Championship next August.

■ The caption on page 56 of our Production Saloon Car review above Colin Blower's car was incorrect. It should have read: 'BF Goodrich road tyres', and not 'racing tyres'.

■ Although he only appeared briefly in F3 this year, by courtesy of Cellnet and Swallow Racing, David Hunt has been working hard to interest the thriving cellular communications company in a full season of sponsorship in 1986. Hunt is likely to continue his association with Tim Stakes's equipe in Leicestershire.

■ Rumours are rife at Brands Hatch that Shell Oils will sponsor a full British F3 programme for Gary Brabham in 1986, as part of their high-profile advertising campaign with Motor Circuit Developments and John Webb, Brabham's promoter in recent seasons.

Brabham — going well on Shell?



WEEKEND SPORT

INTERNATIONAL RACING

DATE/VENUE	EVENT/DETAILS
Nov 17 Riverside (USA)	NASCAR Winston Cup Grand National Championship *Darell Waltrip goes into the final round with a 20 point lead over multiple winner Bill Elliott. Bill scored his 11th win of the season with the Ford Thunderbird at the Atlanta 500 two weeks ago, while Waltrip was third with his Chevrolet Monte Carlo. Darrell has but three wins all year.*

NATIONAL RACING

DATE/VENUE	EVENT/DETAILS
Nov 17 Brands Hatch, Kent nr Fawkham	BBC *Grandstand* FF2000, JPS Champion of Brands FF1600, Special GTs/Modsports, Minis *The BBC* Grandstand *regulars will no doubt dish up another entertaining scrap, while the organisers have laid on a non-qualification race for FF1600s to ensure that everyone gets a run. The Winter Warmer modified series will throw together Rob Cox, Jon Fletcher and Rod Birley among others. Racing from 1.30.*

Volkswagen points the way

The announcement last week of the Volkswagen Junior Rally Team has come as a major boost to a group of young drivers with ambitions to make a career in the sport. It is a very brave move by the British importer, and one which deserves much praise, the four — chosen by a panel of experts — now looking forward to contesting the Group A section of the 1986 RAC National Rally Championship, which will again be supported by AUTOSPORT.

By pitching their new recruits into this series, which has traditionally provided the launching pad for the careers of so many of this country's top men, Volkswagen are offering that valuable first step up the ladder, taking away the financial pressures through generously supplying works specification Golf GTIs, plus support, for the season. The second step is also within the drivers' grasp, as the best of the four has the promise of an outing on the RAC Rally in one year's time.

Volkswagen have therefore taken these young hopefuls under their wing, giving them cars which are to an established, reliable specification. The series, which will include both forest events and tarmac pace note rallies, can therefore be spent developing their driving techniques, and not sorting out the car, as has unfortunately happened with some schemes this year.

While the Volkswagen project looks set to do so much for these lucky four, the RAC MSA's own Junior Rally Team seems to have come to a grinding halt. A couple of years ago there was a definite programme, with events chosen — mostly through the efforts of one enthusiastic, determined character — to expose crews to many different conditions. Perhaps predictably, the RAC MSA has lost its way, and in 1985 there has been but one official outing, an occasion when the team comprised drivers and co-drivers of vastly different experience and very different needs.

The executives in Belgrave Square must consider again what the Junior Team has already achieved, and look at how the project can be developed. Already, the first steps to establish some new names for next year have taken place, but what is now required is firm official backing from the RAC MSA for those enthusiastic and dedicated enough to offer their time.

Junior Team appearances and training days ensure that there is contact between this country's current professionals and their younger counterparts. The RAC MSA must now recover the ground that they have lost in the last 12 months, look perhaps at the idea of backing the proposed International Junior Challenge, and build for the future. They must not leave the responsibility of supporting promising youngsters to private individuals, or companies such as Volkswagen, no matter how forward thinking such projects may be.

CORRESPONDENCE

THE EDITOR IS NOT BOUND TO AGREE WITH THE OPINIONS OF READERS

Keke's record

I would like to pose a question for those with long memories and a deep interest in Grand Prix racing. When was the last time that a driver made three pit stops during a Formula 1 event, and was still first over the finish line?

HUGH HAMPTON
WOLVERHAMPTON, W MIDLANDS

Irish indignation

I feel your report on the tragic accident during the Formula Ford Festival (Oct 31) is very unfair to Paul Bishop. Your reporters imply that Bishop should have been content with his then 13th place, and therefore have held back. Surely to attempt to go around the outside of a slower car at Paddock cannot be deemed 'ill conceived'.

Bishop obviously wanted as high a place on the quarter-final grid as possible, and being the third quickest car on the track at the time, I do not believe he should be blamed for attempting every possible passing move.

It should be noted that it was Bishop's right rear wheel touching Ingram's left front that launched the car. I do not suggest Bishop was without fault in the accident, but to point the finger of blame at one party in an unfortunate racing accident is unfair. For instance, one must question the wisdom of positioning the marshals's post in that particular spot, so open as it is to a possible accident.

May I take this opportunity on behalf of Irish motor racing in offering sincere condolences to the family and friends of the deceased marshal.

MICHAEL CULLEN
DUBLIN, EIRE

A hard racer? . . .

I was rather disturbed to read your reporter's persistent ctiticism of John Booth at the Brands Hatch Formula Ford Festival.

John is a hard racer and a difficult man to pass, but to be in that situation you have to be in front of other competitors in the first place. Defending your position is an important part of motor racing, most Grand Prix drivers practising the art.

It seems to me that in these days of young full time professional Formula Fordsters who don't drink, don't smoke and don't smile, enthusiasts like John Booth are becoming extinct. Anyway, for a 'mobile chicane', and a privateer at that, 11th place in the final was not a bad achievement. Well done 'Butcher'.

STEVE BARTON
METHERINGHAM, LINCS

Or an utter hooligan? . . .

As a totally impartial spectator at my sixth successive Formula Ford Festival, I left Brands Hatch almost speechless with indignation at the fact that such utter hooliganism, in the shape of John Booth, went unpunished.

Now before I get a whole load of people telling me that the appropriately named 'Butcher' was merely defending his position, let me say that what I object to is the potentially lethal weaving on the straight. Fair enough, by all means defend your position with a tight line through the corners, but I witnessed at least three separate attempts to wipe-out the obviously faster Jeremy Packer against the pit wall. Having witnessed many of the controversial incidents throughout the year's major FF1600 races, I must say that this was quite the most stupid driving I have seen, and from an experienced campaigner too. Come on, play the game!

MRS E BROWN
SITTINGBOURNE, KENT

Kind contributions

I would like, through the auspices of your excellent magazine, to thank all the people who gave so generously to the collection which was made for the family of our colleague who was tragically killed while marshalling at the Formula Ford Festival.

While it is impossible to thank everyone individually, special mention must be made of all those magnificent people who were in the grandstand at Paddock Hill Bend, Brian de Zille and his guests, the BBC crew, Brian Jones, Jeff Bloxham and all the drivers and mechanics who donated their hard earned prize money to the fund. Once again, I thank you all for your generosity.

ALLAN READ
ON BEHALF OF POST 3 MARSHALS,
BRANDS HATCH

The Brazilian blend

I fully endorse Jeff Hutchinson's comment (AUTOSPORT, Nov 7) that the Australian Grand Prix was the best of the season. I also appreciated his sound critical analysis of Ayrton Senna's performance: ie. one of the 'stars' of Adelaide.

Looking at the facts of the race, one is forced to agree; but for different reasons:

1) Senna forced Mansell off the road in an impossible overtaking manoeuvre and then had the audicity to blame the Williams driver.

2) He then rammed the race leader and destroyed his car's front wing.

3) Lacked the basic race sense to pit immediately or to modify his driving technique to compensate for the car's poor handling.

4) With the Lotus ailing, he blocked second-placed Rosberg with a piece of carefully considered driving that merited a shake of the fist from the Finn.

One has to respect AUTOSPORT's season-long, unswerving admiration for the Brazilian. It's just a shame that the blinkered sycophancy doesn't extend as far as drivers such as Pierluigi Martini or Philippe Alliot when they were guilty of the same sort of unthinking, immature driving earlier in the year.

PATRICK DYSON
SHEFFIELD, SOUTH YORKSHIRE

Special people

May I extend, through your *Correspondence* columns, my heartfelt thanks to a fantastic entrant/sponsor after three tremendously enjoyable years.

Brooklyn Motorsport, under the guidance of Michael Hill and George Foster, have supported me in a way that I originally thought could never exist. Their enthusiasm, coupled with a warmth of friendship, will be sadly missed by myself and my family as I move into a new venture.

Mike and George, along with all the team, are a credit to our sport, and people like them provide hope for aspiring future champions.

Thankyou team, for everything.

CHRIS HODGETTS
REDDITCH, STAFFORDSHIRE

Hill honoured

To commemorate the 10th year since Graham Hill lost his life in an air crash, Club Lotus has invited Mrs Bette Hill to be guest of honour at our Graham Hill Dinner at London Rowing Club on November 29. We have had no trouble locating Graham's old Lotus contacts and many friends but would like to hear from his friends and associates from the old days including, of course, those championship years with BRM.

We would be pleased to hear from any of your readers who fall into this category on; (0362) 4459.

GRAHAM ARNOLD
ORGANISER, GRAHAM HILL OBE
COMMEMORATION DINNER

The numbers game

Rest easy Bill Goodman (Oct 24), and other drivers or team managers who have experienced difficulty in removing self adhesive numbers and stickers from painted surfaces. It is possible to buy competition numbers which have a less aggressive adhesive. These are available to order in a variety of typefaces and colours from us. We are a major distributor of Eurotext lettering and stripes, so if you have a problem regarding this type of product give us a call and we are sure we can solve it.

T MARKHAM
SALVOSCREEN LIMITED
LEAMINGTON SPA, WARKS

Coming unstuck?

Further to the recent letter in your publication regarding the removal of competition stickers (*Correspondence*, October 24) I would like to mention the best method I have discovered.

For the last three years I have used a label remover called 'jelsol' manufactured by Automart Ltd, of Tamworth. This will remove the adhesive backing, or if you prefer the sticker itself. Just spray or brush onto the surface (horizontal or vertical), leave for approximately 15 minutes and wipe off.

This is the cheapest, easiest and safest method I have discovered.

JOHN RICHARDSON
CARLISLE
CUMBRIA

10

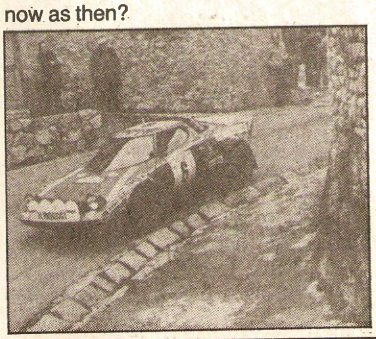
Ten years ago this week (AUTOSPORT, November 13, 1975), the future of Lord Hesketh's Formula 1 racing team, spearheaded by James Hunt, was in jeopardy, the patriotic aristocrat's team in dire financial straights . . . Jacques Laffite powered the new Ligier-Matra JS25 round the Paul Ricard short circuit in an amazing 1m10.5s straight 'out-of-the-box' to the surprise of many . . . And Nilsson and Neve tested the BT44 . . .

The island of Corsica saw one of the closest and exciting finishes in its history, Bernard Darniche coolly seeing off Jean-Pierre Nicholas's advances in the Renault-Alpine. The winning margin was, in the end, just over 30secs.

Darniche is pictured below passing through a Corsican village in his privately run French Lancia Stratos (the works cars having fallen by the wayside . . .).

Chris Witty looked back in *Purely Personal* on the previous weekend's ShellSport Mexico race in which the Windsor Castle boozers (ie AUTOSPORT) were beaten by the Victoria pub team (ie Tony Lanfranchi, Gerry Marshall, 'Whiz-zo' Williams, *et al*). "The inquest into the defeat," tells Witty, "I suppose started with the whole idea in the first place . . . Our drinking habits were challenged by the geriatric society down the road at the Victoria public convenience. Messrs Tony Lanfranchi and Gerry Marshall, singing their praises about what a load of old women we all were, issued a challenge — an inter-team pub race. Phillips, our Editor, agreed.

Unfortunately for Mr Phillips, he lost . . . But would such a challenge happen now as then?



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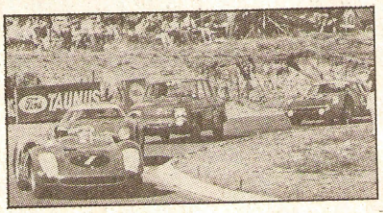
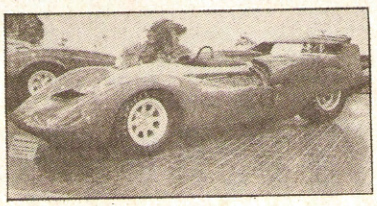
Twenty years ago this week (AUTOSPORT, November 12, 1955), the only motor racing news of merit was from Kyalami where Ford suffered a defeat at the hands of Ferrari in the Rand 9Hrs. The David Piper/Richard Attwood Ferrari 365P2 led early in the race, but lost 20mins after an off at Members Bend. This left the privately-owned Ford GT40 of Peter Sutcliffe/Innes Ireland with a sizeable lead. Yet, the Ford, already



suffering from low oil pressure, appeared to have a wheel bearing that was packing up and had to back off. With only *three* laps to go, the Ferrari tore past, having clawed back as much as 60secs on one lap, to clinch a highly emotional victory. So, the competition was hotter than the picture above suggests . . .

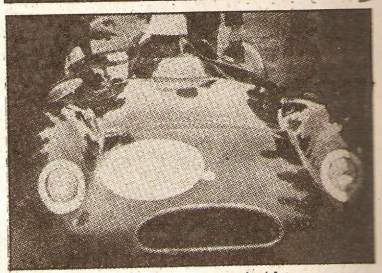
The other major event of interest was the Turin Show, and John Bolster summed up the delights of this exhibition of Italian treats thus: "It is a curious thing



that art, as applied to the automobile, is an Italian monopoly."

The show was packed with various offerings from Ghia, Osi, Vignale, Pinin-farina and others, with a design for de Tomaso (above) proving the star of the show with its offset steel backbone. Powered by a Ford V8, this two-seater was a forerunner to the delectable Mangusta. Also from the Ghia studios was an AC Cobra Spider, presenting clean lines that didn't shout brute power.

30



Thirty years ago this week (AUTOSPORT, November 11, 1955), Juan Manuel Fangio won the Venezuelan GP in the country's first ever major road race. The whole thing was a bit of a fiasco, however (the polite reference being a 'box-up'), massive confusion meaning that the only definite fact to emerge was that Fangio was first. So upset were the local reporters that they tried to persuade their editors to supress all coverage.

One R K Tyrrell was the subject of our *Portrait Gallery*, Ken at the time racing a neat green Cooper in the 500cc F3 formula. Apparently the car sported an axe insignia on its nose, in respect of Ken's Guildford-based timber contracting company. Our profile told how Tyrrell had progressed from being among those who 'toil and spin' to the ranks of the sport's most consistent finishers, his great enthusiasm nicely tempered.

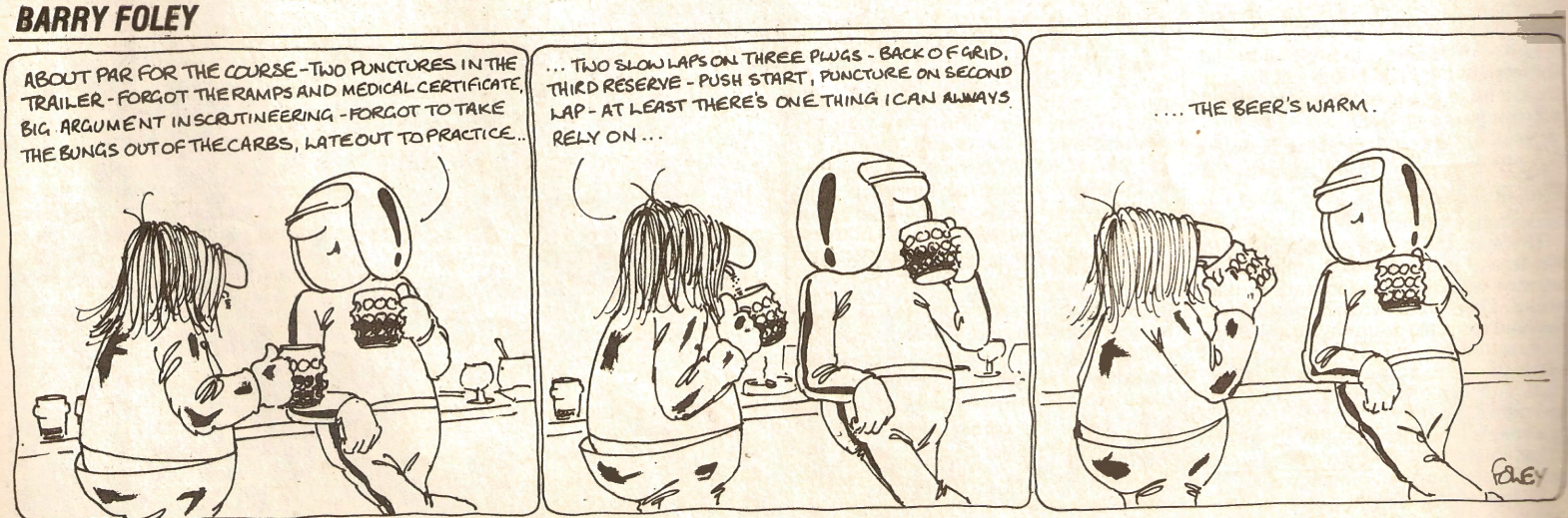
The editorial leader concerned itself with the fashionable rubbishing of all products British and condemned the attitude, especially among those who lived in Britain and enjoyed a livelihood from the motor industry. The adoration of everything continental was held to be the result of skillful propaganda which needed combating in Britain, and a fair section of the community was chastised for their love of a fairly unremarkable 'beetle-shaped mass-produced machine.'

Thirty years and 17 million cars later, we may be forced to reconsider that one!

And we even had a silly season upon us, Stirling Moss thought almost certain to drive for BRM after successful tests. Down at Goodwood, meanwhile, King Hussein of Jordan tried a Cooper Climax (above). How about it Bernie?

CATCHPOLE

BARRY FOLEY



REPORT: GORDON KIRBY — PHOTOGRAPHY: PAUL WEBB

After the second round of pitstops, Danny Sullivan led from Jan Lammers, going on to win after Lammers slid off in traffic and stalled. Below: And which one do you think is the film star?

Age outfoxes youth

Al Unser Sr stole this year's Indycar championship from his son with just six laps left in last weekend's season-closing race in Miami. Unser Sr trailed his son by two or three places through most of the 200-mile race, but he put in a magnificent charge.

With Roger Penske's coach-like words crackling over his radio, Unser Sr outbraked Roberto Moreno for fourth place and drove on to cross the finish line just five seconds behind his third-placed son. The 46-year old Unser therefore scooped the Indycar World Series title by a single point!

QUALIFYING

It was a pleasure to discover that the new track built in Tamiami Park on the outskirts of Miami was well-built and well-planned. Ultra-smooth and flat, the track consists of a much more varied and interesting series of corners than most 'city event' layouts. Not a single hairpin and only one chicane interrrupts the flow of the track, which include a long, 185mph straight leading to a fast kink immediately before the pits.

To a man, the drivers were happy with the track, many of them noting the contrast with the Meadowlands in particular. There were two or three places to pass and room to see through most of the corners and beyond. Through the twistier sections, there was a small band of grass and run-off, and even from the spectators' point of view there were a reasonable number of good vantage points to see through the usual maze of chainlink fencing and cement walls.

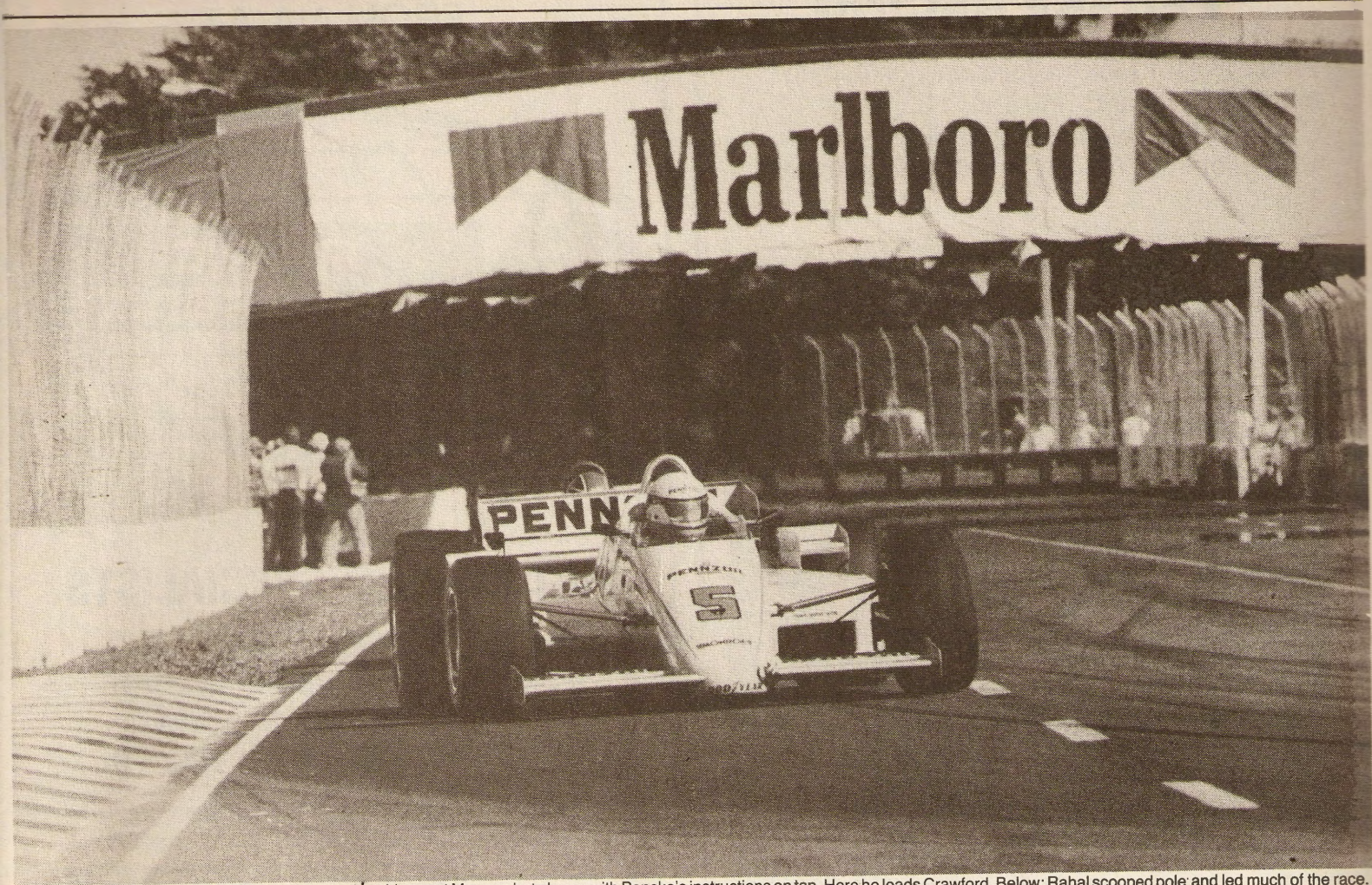
Promoted by Ralph Sanchez, who already has successfully staged two IMSA races on city streets in downtown Miami, the new event on the outskirts of the city was sponsored by Beatrice and vigorously promoted by Sanchez's group. CART chairman John Frasco is a partner in the race, which appears to have a future of standing as the Indycar season-closer.

Tamiami Park embraces the grounds of Florida International University and the park's 235 acres are dotted with playing fields and other clusters of trees and greenery. In order to construct the track, a good deal of filling and excavating had to take place, and a large number of trees were transplanted to border the back of the circuit.

From the point of view of the drivers and teams, the biggest problem was in coming to grips with the very smooth road surface (laid, incidentally, back in July). It took a long time for any rubber to find its way into the glass-like surface, and most of the first day of practice was spent slipping and sliding, figuring out gear ratios and otherwise hoping for the track to 'come in' on the second day, which included two qualifying sessions.

Not a single Indycar had taken to the track before the start of Thursday's opening, mid-day practice session, so everyone was starting, at least, from the same point. Goodyear brought along one of last year's very conservatively-compounded batch of radials and in order to get the tyres up to working temperature, some rather extreme front camber angles were soon adopted by all.

The matter on most lips, of course, was the father-versus-son battle for the championship. If dad won, he would be the oldest National Champion on record, while junior had the chance to become the youngest-ever champion. As close and uncomplicated as the two men are, the story made excellent grist for the promotional mill, giving the final race of the year a little more public and media awareness than most other CART races.



Unser Sr drove conservatively at first, prior to making his run at Moreno, but always with Penske's instructions on tap. Here he leads Crawford. Below: Rahal scooped pole and led much of the race.

From the point of view of the duelling family members, however, there was the fact that they were going to have to cope with at least eight or 10 other drivers. In this most competitive of Indycar seasons, the Unsers were going to have to fight it out with a throng of others. There was no cakewalking to the title to be done on this occasion . . .

Going into the race, Senior was leading Junior by three points. With points being awarded from first through 12th places (on the basis 20-16-14-12-etc), it boiled down to a situation where father could assure himself of the title by finishing the race directly behind his son — as long as Junior didn't win. If the two men were to come out of the race tied on points, the younger man would take the championship because he had two wins prior to Miami, compared with Senior's lone victory this year.

On the first day of practice, neither Unser looked very good, with Junior finishing the day in eighth place and Senior an even more unhappy 13th. Setting the pace that first day was an aggressively on-form Danny Sullivan, who was fastest in both sessions.

The following day's qualifying sessions were a different story, however, as Sullivan slipped to fourth fastest on both occasions and Bobby Rahal again emerged to set the pace. It was no easy job for Rahal to do so, mind you, as he fought back in the closing minutes of the final session, stealing the pole from Geoff Brabham on his very last lap!

An inspired half an hour of qualifying that was, with Rahal, Brabham and Bruno Giacomelli squabbling furiously over the pole, each man holding the honour in rapid succession. For Rahal and the Budweiser/TrueSports/March operation, it was very satisfying to take their seventh pole of the year, and round-out the season in a deserving, pacesetter's role.

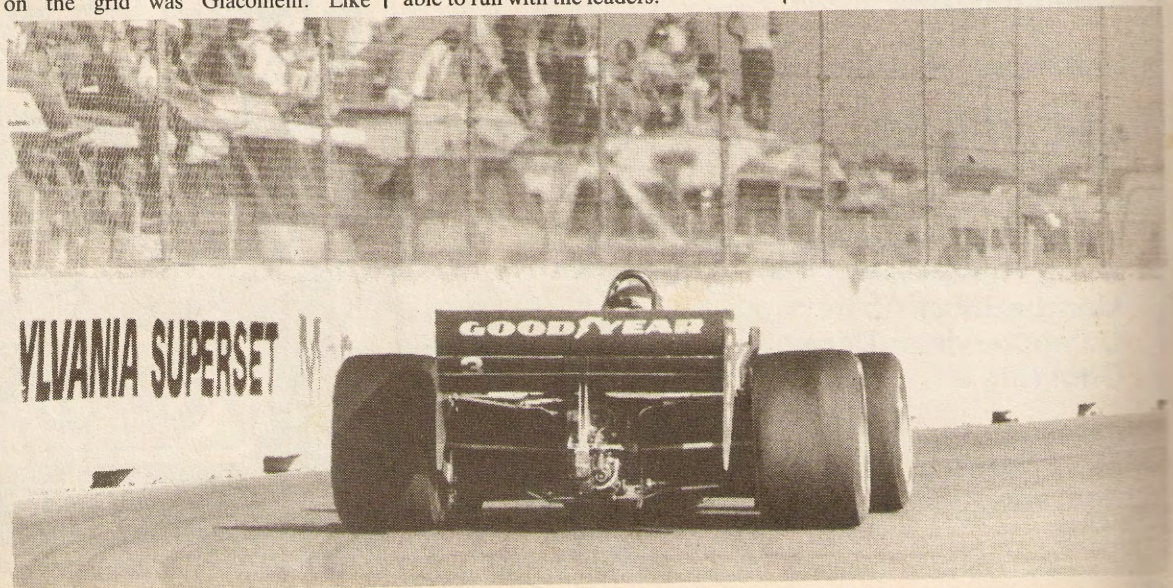
Rahal was looking for his fourth win of the year, while Brabham was hoping to score his first-ever in Indycars. From time to time, the Australian has been a major contender this year and last weekend was another of those occasions. Rick Galles's Gary Anderson-led team appeared to have an excellent appreciation for the subtleties of Tamiami Park, as Brabham's black March looked the smoothest-operating car in the place. Although never as happy with his car, team mate Roberto Moreno qualified Galles's other March only three places further down the grid.

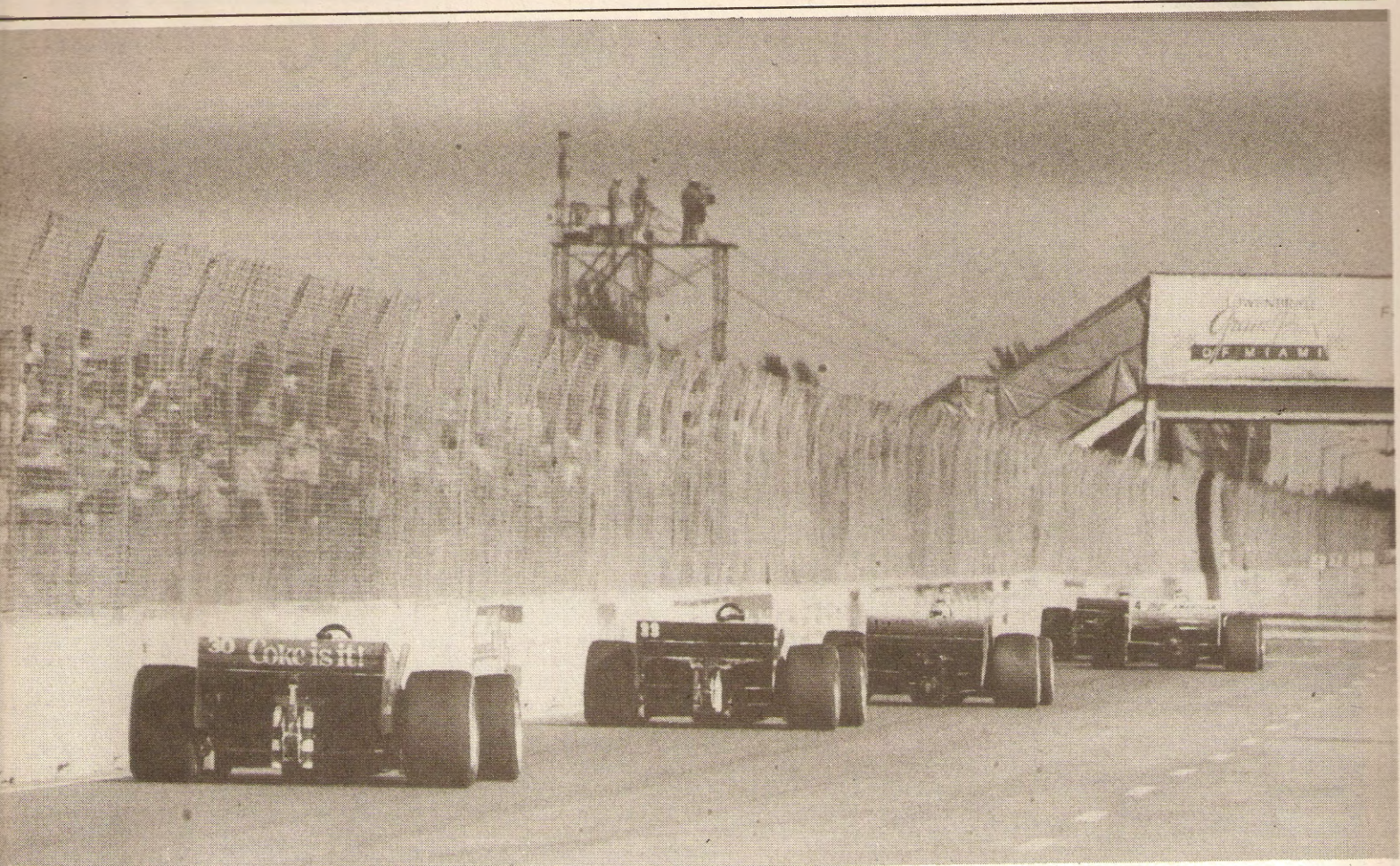
Something of a surprise in third place on the grid was Giacomelli. Like Moreno, the Italian has played a fill-in role this year, driving in most road races. Making what was apparently his last appearance for Patrick Racing at Miami, Giacomelli was competitive all weekend and, in the final qualifying session, he was a contender for the pole. His car was excellent under braking and, for the first time since the Long Beach season-opener, Giacomelli looked like having a good race.

At the wheel of Patrick's other March, Emerson Fittipaldi qualified one second slower and four places lower than Giacomelli. After struggling with a lack of grip on the first day of practice, Fittipaldi was happier on the second day and by raceday he was confident of being able to run with the leaders.

Starting beside Giacomelli, up on the second row, was Sullivan. Driving Penske Racing's Miller Beer-sponsored March, Sullivan set the pace through the first day of practice and, before that day was out, he had managed to find the limits of the tyres. On full tanks and with the tyre pressures pumped out of sight, Sullivan blistered a right rear. The following day, he tried a very different set-up, looking to preserve his tyres.

Team mate Unser Sr fought a tail-happy car throughout practice and qualified almost a full second slower than Sullivan. That put him in 12th place on the grid, squarely in the midfield. Nevertheless, he was reasonably happy with his car by the end of two days at ▶





The Tamiami circuit met with much approval, with its fast straight and lack of hairpins. Below: Jan Lammers was most impressive on his third Indycar outing, qualifying sixth and leading.

practice. "It's not bad," he said quietly. "I think I can race this car."

Looking good in his third Indycar start was Dutchman Jan Lammers. Driving Forsythe Racing's Lola T900, he was fast and comfortable, qualifying sixth fastest, within half a second of the pole.

Two places behind Lammers, and four ahead of his father, was Al Unser Jr. After a slow start, he and Doug Shierson's team found a good combination for their Lola and the championship contender was fifth fastest in the first qualifying session. However, a broken exhaust pipe kept him out of most of the final session, so that he lost three, important, places.

Also missing much of the second qualifying session was outgoing champion Mario Andretti. An engine fire kept him off the track for most of the session so that he started one place behind Unser Jr. Never very happy with his car at Miami, Andretti was more encouraged after running well in the final, fulltank session late on Friday afternoon.

Completing the top 10 qualifiers was Roberto Guerrero, who crashed on the first day of practice. In his spare car, Guerrero quickly got down to business as he hoped to climb out from under the dark cloud of ill-fortune hanging over his head and Dan Cotter's team.

Side-by-side on the eighth row were two of three British drivers in the field. In his second appearance with the Pace Electronics Lola T900, Jim Crawford qualified 15th, while Ian Ashley was an aggressive 16th in a year-old Lola T800. This was Ashley's first proper race in seven years.

Among those in trouble at Miami was Jacques Villeneuve, who survived a couple of car-bending incidents, and Kraco team mates Kevin Cogan and Michael Andretti, who surrounded Villeneuve in 17th and 18th places on the grid. Twenty-eight of 31 cars, including four 'promoter's options', qualified to start the race.

RACE

Raceday — Saturday — was hotter than the others, with a good dose of humidity. A steady breeze took the edge off the humidity, which was a relief to the drivers who were anticipating 112 very active laps.

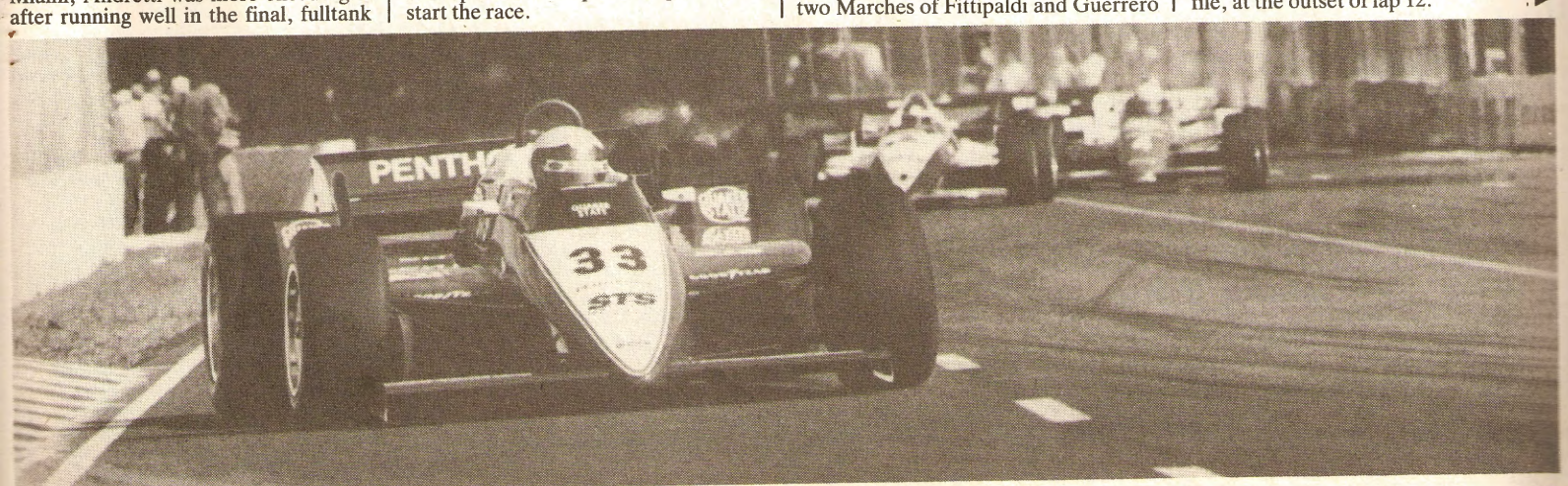
With the startline located in the turn-in phase for the decreasing-radius, forth-gear first turn, it seemed somewhat inevitable there would be some kind of incident at the start. Stern words were delivered in the drivers' meeting by chief steward Wally Dallenbach but, on the dive down to the apex, just beyond the starter's stand, no less a man than Mario Andretti locked his brakes as he attempted to outbrake Emerson Fittipaldi.

Andretti appeared to collect both the inner wall and Fittipaldi's car at the same moment. In a flash, the two cars were collecting Guerrero's and shooting across the road into the outer wall. The two Marches of Fittipaldi and Guerrero were left tangled together — thoroughly written-off — right there against the wall, while Andretti's Lola limped along the wall for a few years before grinding slowly to a halt, its front suspension deranged.

The rest of the field — both Unsers included — got through unscathed, although five more corners down the road there was another incident!

This happend when Raul Boesel's car suffered an apparent tyre deflation and he spun smartly. Kevin Cogan tried to pass Boesel's sliding car on the right side, while teammate Michael Andretti chose the left side. Cogan consequently clipped the wall and tore off a rear corner, while Andretti clouted Boesel amidships.

That was enough carnage to bring out a full-course yellow and, after three laps, the pace car took up position. The field ran eight slow laps in line behind the pace car and the cars were restarted, in single file, at the outset of lap 12. ▶



Moreno, Unser Jr and Luyendyk (right): the title was decided when Roberto failed to keep the other Unser behind him.

▶▶

This time there was no confusion. At the front, Rahal jumped away. Brabham's engine failed to respond properly and he was unable to match Rahal through the first few corners. In fact, Brabham was in trouble with some duff electrics and, by the time he realized he had a problem and peeled out of line, making for the pits, Rahal had pulled out all of three seconds.

Behind, Lammers had passed Giacomelli and they were now leading the pursuit in second and third from Moreno, Sullivan, Unser Jr, Luyendyk, Unser Sr, Crawford and Bill Whittington. In the pits, the Galles mechanics fiddled with Brabham's car. Twice they sent him back out, but both times he crept back to the pits, finally retiring. "It was very disapointing." commented Geoff. "The car felt so good. I thought we had a really good chance. I guess it just about sums up my season, doesn't it?"

Meanwhile, Rahal was steadily extending his lead, stretching it to 6 secs in four laps. Behind him, Lammers, Giacomelli and Moreno were hard at it and, at the beginning of lap 17, Giacomelli outbraked Lammers for second going into the first turn. Right away Giacomelli was off and running, leaving the rest behind and keeping solid pressure on Rahal from 5-6secs astern.

Lammers continued to hang onto third place under heavy pressure from Moreno and Sullivan, with Unser Jr and Luyendyk completing the train. Another five or six seconds and along came Unser Sr, chased hard by ninth-placed Crawford.

At that stage of the game, Junior was being careful, conservative, anxious to avoid any incidents with the squabbling trio of cars directly in front of him. Senior was similarly running a little conservatively, nursing his tyres, trying to keep his son within range.

"At that part of the race," said Unser Sr later in the day, "I was nursing everything. I had to stay out of trouble and not allow myself to get too far behind."

Evidence of tyre problems began to show its face just before the first round of fuelstops. Fourth-placed Moreno's threat to Lammers began to fade as his tyres went off and then blistered. For a while, Lammers was able to get away from the others, but then Sullivan passed the troubled Moreno and began to close on the Dutchman.

Lap 31, and Moreno was the first of the leaders to stop, his first set of tyres completely gone. The others kept going with Sullivan putting enough pressure on Lammers to snatch third place when Lammers overcooked it and ran wide at the chicane before either man made his first pit stop.

Between laps 35 and 38, all the leaders stopped. Everyone got in and out of the pits without trouble. The most serious problem belonged to Unser Sr who had a small heart-flutter when his engine briefly died as he left his pit. He was pitted at the end of the pitlane, past the start/finish line, so that he had to turn hard left and then follow the pitlane around to the right as it paralleled the tight swing of the first turn.

Back on the track, Rahal was leading by just 4secs over the rest with Sullivan now leading the chase from Lammers, Unser Jr and Moreno. Junior has passed Moreno in the pits and was now three places (and three points) ahead of his father. The latter continued in eighth place behind Luyendyk.

At the front, Giacomelli began to chisel into Rahal's cushion. By lap 50 he was within 3secs of Rahal and more than 20secs clear of Sullivan.

That was the same lap Crawford tried to outbrake Ashley while attempting to lap Ashley in the first turn. The two cars collided, clipping the inner wall and shooting across into the outer wall, with Crawford's car taking a solid frontal impact. He was dazed by the blow, although conscious and otherwise unhurt, and the medical crew was cautious in removing him from the car.

Out came the pace car, therefore, for half a dozen laps under yellow. With Crawford and the wreckage of the two cars removed from the scene, the race was again restarted on lap 61.

Rahal and Giacomelli quicly got clear of the rest, with the leader pulling out a small cushion to the second man. Giacomelli kept the pressure on, however, as others had to contend with a sting of lapped cars. Lap 68, however, and Giacomelli's car suddenly snapped out of line as he braked into the first turn. The car spun slowly and slithered into the wall. Caused by a broken brake disc, the accident was a sad end to a fine drive by the little Italian.

The second and final round of fuel stops took place between laps 73 and 78. Before the stop, Unser Sr passed Luyendyk for sixth. During the stops, Rahal hit trouble, coming in a little too quick and getting into his pit at an uncomfortable angle.

A contrastingly rapid, troublefree stop was made by Sullivan and the Penske mechanics, so that when he rejoined he was leading from Lammers and Rahal. Twelve seconds behind the leading trio came Unser Jr, Moreno, Unser Sr and Luyendyk.

Sullivan's car was now working well and he and Lammers engaged in a fierce battle, slowly pulling clear of Rahal. The latter was in trouble with a tail-happy car and fearful of blistering his rear tyres, as had happened prior to his last stop.

In heavy traffic on lap 82, things changed again when Lammers braked too late and slid off into the dirt, stalling. "I have no excuses," said Lammers. "It was my mistake. You don't deserve to win when you make mistakes like that."

For a few laps Rahal was able to keep some final pressure on Sullivan but, by lap 90, the Indy 500 winner was running away on his own. Rahal was busy nursing his tyres while, another 16secs behind, Unser Jr was all alone in third place and hoping that Moreno could hold off his father. Sullivan drove on to score a fine win, showing the savvy both of driver and team.

"In the early part of the race," noted Sullivan, "I was really careful with the tyres. When it counted at the end, though, the car was great."

As Sullivan and Rahal took first and second, the interest settled squarely on the two Unsers. Senior was charging by this time, inching up on Moreno and finally catching him with seven laps to go. He sized-up the Brazilian on lap 106 and, on lap 107, he made a perfect pass under braking for the second turn.

"A few laps earlier I thought it would be hard to catch Moreno, let alone pass him," said Unser Sr. "But when I got up to him I could see he was in trouble, and when I passed him I was able to put him in a position where he couldn't come back at me. After that, it was a case of hoping I wouldn't run into any trouble with traffic and could stay ahead of him."

As Unser made his successful charge, team owner Roger Penske was talking energetically over his radio.

Roger always talks a lot over the radio," noted Unser. "I like it. It keeps you informed, and Mr Penske likes to have you *very* informed. If you had been listening to the radio today, you would've realized that!"

As far as stealing the championship from within the grasp of his son, the 46-year-old father admitted to a bag of mixed feelings. "I've got mixed emotions about this, I really do," he commented. "When I finally crossed the finish line, I felt bad for him. I would've liked very much for Al to win.

"Like I said before, my name is up there whoever won this thing, so it really doesn't matter to me. But the thing is, championships are hard to come by. You don't get too many chances like this, and I wasn't going to back off!"

TAMIAMI (USA)

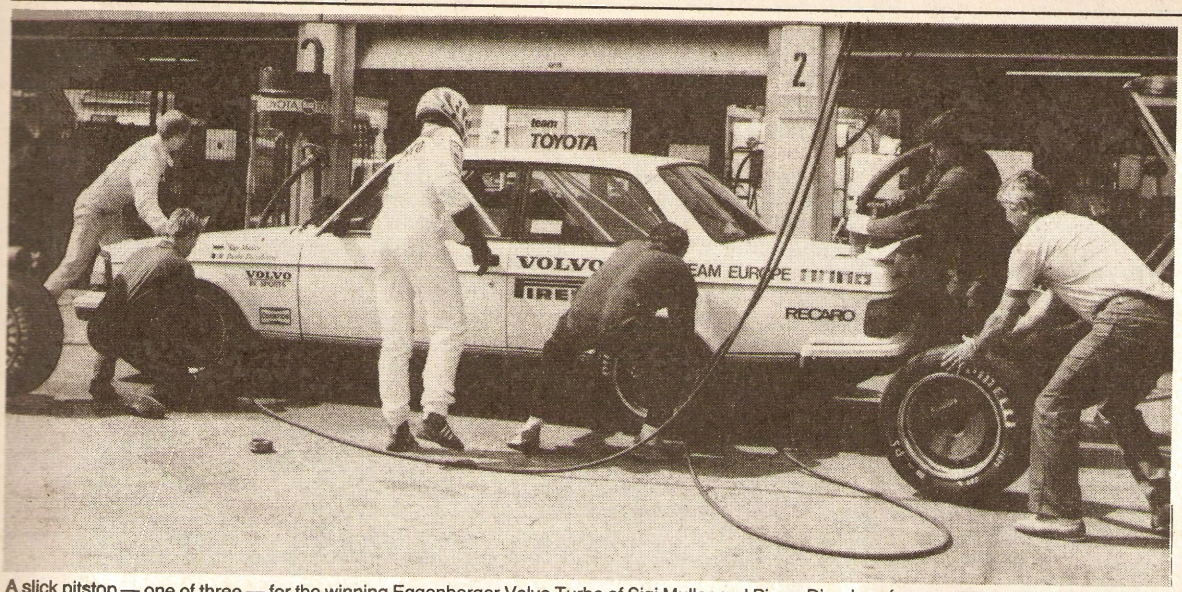
Beatrice Indycar Challenge/Miami Grand Prix, Nov 09, CART PPG Indycar World Series, final round — 112 laps (199.8 miles)

Pos	Driver (Nat)	Chassis/Engine	Result	Qualifying	Pos
✓1	Danny Sullivan (USA)	March-Cosworth 85C	2-04:59.41 — 95.915mph	57.482	4
2	Bobby Rahal (USA)	March-Cosworth 85C	2-05:15.21	56.408	1
3	Al Unser Jr (USA)	Lola-Cosworth T-900	112 laps	57.912	8
✓4	Al Unser Sr (USA)	March-Cosworth 85C	112 laps	58.432	12
✓5	Roberto Moreno (BR)	March-Cosworth 85C	112 laps	57.695	5
6	Danny Ongais (USA)	March-Cosworth 85C	110 laps	60.021	19
✓7	Arie Luyendyk (NL)	Lola-Cosworth T-900	110 laps	58.296	11
8	Bill Whittington (USA)	March-Cosworth 85C	110 laps	58.769	14
9	Josele Garza (MEX)	March-Cosworth 85C	109 laps	60.751	22
10	Rupert Keegan (GB)	March-Cosworth 85C	100 laps	61.062	25
✓R	Geoff Brabham (AUS)	March-Cosworth 85C	15 laps — electrics	56.535	2
R	Bruno Giacomelli (I)	March-Cosworth 85C	68 laps — brake disc	56.883	3
✓R	Jan Lammers (NL)	Lola-Cosworth T-900	81 laps — accident	57.773	6
R	Emerson Fittipaldi (BR)	March-Cosworth 85C	0 laps — accident	57.892	7
✓R	Mario Andretti (USA)	Lola-Cosworth T-900	0 laps — accident	57.936	9
✓R	Roberto Guerrero (COL)	March-Cosworth 85C	0 laps — accident	58.206	10

Lap leaders: Rahal 1-37, Giacomelli 38-40, Rahal 41-73, Lammers 74-78, Sullivan 79-112.

Final championship postions: 1, Unser Sr, 151 pts; 2, Unser Jr, 150; 3, Rahal, 134; 4, Sullivan 126; 5, Mario Andretti, 114; 6, Fittipaldi, 104; 7, Tom Sneva, 66; 8, Jacques Villeneuve, 54; 9, Michael Andretti, 53; 10, Rick Mears, 51; etc.

REPORT: JOE SAWARD



A slick pitstop — one of three — for the winning Eggenberger Volvo Turbo of Sigi Muller and Pierre Dieudonné.

Two Eggenbergers!

At the end of the day, there were a handful of beaming Swedes — their plan for world domination well under way. Thousands of locals had trekked out to the Fuji Speedway, and millions of television viewers had tuned in, to see a powerful display of Volvo speed and reliability. You could almost see the Volvo men counting up the yen they were going to make in sales.

From a sporting point of view, there was no one who looked like getting close to the two Eggenberger 240 Turbo cars and they ran together at the head of the field through the long afternoon. We had the vague impression that we were watching a little bit of motor racing history being made, but also we couldn't help but think what might have been if more Europeans had come. . .

QUALIFYING

The Land of the Rising Yen, where you can walk around and believe that Monaco is cheap after all, where you feel the thrill of a bargain if you've only paid double the normal price. Where an average sized European has a permanent bump on his head because of low ceilings, and where you can be refused entry to a hotel for being (and I quote from hotel regulations) "beastry drunk. . ."

Here, where golf is a religion, the saloon car racers gathered for the first international saloon event, in the knowledge that if this year it was all for fun (well, with £15,000 going for a win, perhaps not), but next year it will be serious. They billed the event 'East meets West', but under the famous Fuji volcano the Europeans were thin on the ground.

Those who had braved 'the red-eye flight' via Anchorage included the European Touring Champions Eggenberger Motorsport, with two of their Volvo 240 Turbo cars. BBW Motorsport, led by Dave Brodie, were making their first foray to foreign parts with three Colt Starions under their wing, to be driven by Brodie, Kunimitsu Takahashi, Fumio Mutoh and Akihiko Nakaya from Japan, with Michael Lieu from Hong Kong and Australians Kevin Bartlett and Bradley Jones — a truly intercontinental team.

There was David Sears, over to have a go in the ex-Sheene Toyota Celica Supra which has been sold to Sigma Automotive, and from America we had Tim Sharp, a former Bob Bondurant racing school instructor and regular Toyota runner Stateside.

That, sadly, was as far as the international entry went. The organisers and most of the teams had expected an entry of some sort from Tom Walkinshaw Racing, be it Jaguars or Rovers, but none arrived. It rather devalued the event. Also missing were the Australians who had been expected: they were either recovering from the Grand Prix support event at Adelaide, or were in New Zealand racing at Pukekohe in a Benson & Hedges Endurance event.

Thus from the word go it looked like a Volvo benefit. Having said that, this was to be a five-hour race and with no opposition the Volvo men wondered if they might not doze off and collide. . .

"It's a great shame the Rovers are not here," said Sigi Muller, "because this is their kind of track — a long straight and lots of fast corners." What Sigi did not mention — and something that perhaps did cross Walkinshaw's mind — was that this is a race track at altitude, and the turbo engines just love that. . .

It is customary in Europe to see Gianfranco Brancatelli plonk his Volvo on pole position, and sure enough 'Branca' pulled out all the stops in qualifying, wound up his 240 Turbo and went for it in the first session on Saturday morning. The little Italian had never visited Fuji before, but certainly looked at home. "Ees nice," he commented, "everyone is same size as me."

With the clouds swirling menacingly, 'Branca' took the pole by just 0.12sec, clear of a sterling effort by Sigi Muller Jr. By ETC standards, the Volvos were a country mile clear of the rest, the nearest challenger being the leading Colt — with Brodie at the wheel — some 2.37secs behind. 2.37! This, remember, was the same car that Brodie had taken pole with at the Tourist Trophy back in September, so what was wrong? Well, poor old 'Brode' had climbed off the aeroplane and been struck down by a mystery virus and was clearly not at all well. The leading Starion had another problem too, thanks to tyre politics: Brodie was running on Pirellis, but when his co-driver Kunimitsu Takahashi climbed aboard the car had to run Yokohamas — try setting that car up!

Seven laps in arrears, the Hartge BMW of Nagasaka/Moji made it through into third place.

Behind the Colt there was another appreciable gap to the first of the local men, but then we had five cars within a second of each other. Japan only started Group A racing this year, and in the events so far this year there had been some rather remarkable results. . . One race was won outright by a very rapid Honda Civic from the baby class, and another by a similar class 1 car on a brand new kind of rubber. . . After the early ups and downs, things had settled a little and the series was being led by a Hartge BMW 635CSi.

On this occasion, though, the leading locals were all in the very rapid Nissan Skyline Turbos — the 16-valve engines pumping out the horsepower and making the cars incredibly quick in a straight line, even if they did look a bit unstable in the corners. The leading Nissan was crewed by Kenji Tohira and Akira Hagiwara, with Seichi Sodeyama and Mitsutake Koma second just ahead of Motoji Sekina/Minoru Seki. Also in the bunch was the Hartge BMW of Naoki Nagasaka and Kazuo Mogi with the second Ralliart Starion of Michael Lieu/Akihiko Nakaya next up.

David Sears and his partner for the weekend, Yasuhiro Okamoto, qualified only ninth after monumental gearbox problems throughout practice. The Supra, though, was well clear of the similar local cars, and they seemed keen to find out why. . .

The biggest surprise was *that* Honda Civic, which qualified 10th. The Mugen-prepared, 16-valve 1.6, driven by Satoru Nakajima and Osamu Nakako was absolutely incredible in a straight line. Wow! When you've seen a Honda Civic climbing all over the back of a BMW 635CSi, you've seen everything. . .

There was a fourth Nissan Skyline driven by Nissan works driver Masahiro Hasemi and his partner Aguri Suzuki, and then another couple of class 1 cars (there were some class 2 cars, but they were a fair way down. . .), Toyota Corolla Levins both sporting Trampio-sponsorship and Toyo tyres, with Tom Tsutsumi the lead driver. Small wonder the effort was being called Object T. . .

These cars caused much interest among the European contingent, not least for their interesting sponsorship slogan. "Drive to be one with the earth," it said, "and through the earth, one with the car." Hey, pass the sesame seeds. . . Opinion was divided as to whether this was actually serious or the description of a big accident. . .

Further down the grid we had some interesting entries, as well. There was a former Miss Universe — Erj Okuwaki — in a Minolta-supported Toyota Corolla, who impressed everyone with her neat lines around the circuit. . . Her car qualified (thanks to her team mate) in 15th spot, just behind the former F3 man Toshio Suzuki in a Toyota Corolla FX — a very rapid estate!

Behind Miss Universe came the third Ralliart Starion, much to the chagrin of the Australian imcumbents Kevin Bartlett and Bradley Jones, who were having rather a rough time of it all, their car blowing bits and pieces willy-nilly. Further back Tim Sharp, one of Miss Universe's team mates, had to get used to a gearlever on the wrong side and a battery failure in the first session. Come race day he was rather short of mileage in the car.

The leading class 2 machine was way

down in 22nd — a Volkswagen Golf with Shin Seitoh and Jun Kida driving — while behind them came a VW Scirocco featuring Japanese film star and heart throb, Keichi Iwaki.

In very serious trouble was the new Japanese F3 champion Keji Sato in his Toyota Celica Supra, having run throughout practice with what sounded like half an engine. It was sponsored incidentally by Mr Junko. . .

Throughout practice there was a huge crowd, a helicopter pilot who needed his brains tested, an absolutely word-perfect (Oxford accent and all) translator, and a rather odd-looking, kilted figure over as an observer from the RAC MSA — Neil Eason-Gibson. It was all rather incongruous, but in keeping with the feeling of the whole event. This really was another world.

A quick wander down the pitlane revealed a dearth of centre locking-wheel nuts. Those that did have this luxury usually only had one tyre hammer to go round, but what they lacked in experience and equipment was made up for in enthusiasm. They may be new to Group A, but in a couple of years the Japanese will be up with the best of them. Now, they are happy, and for the most part, willing to admit that the Europeans are ahead and they have to learn.

RACE

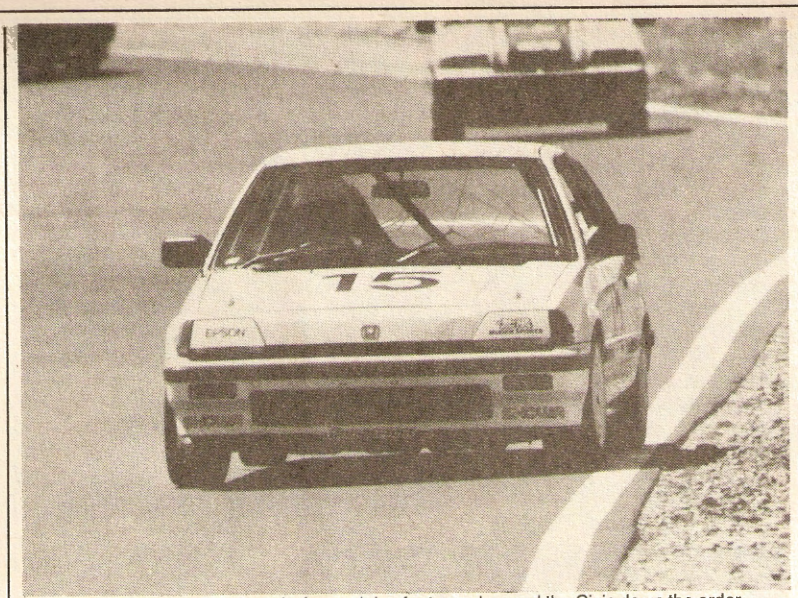
The learning process was to be continued through into Sunday, with the Volvos once again looking totally untouchable in the early morning warm up, despite fog and a vague sprinkling of rain from the mountain. The weather at Fuji is almost legendary for its ability to change, and watching the sky revealed totally nonsensical patterns of cloud movement. The mountain, as the Japanese appreciate, is a law unto itself. Throughout the morning the crowd grew, and by the start time of 11am the main grandstand was almost full — and that's one hell of a big grandstand.

Already gone from the field was Brodie, his team deciding to withdraw him from the race as his illness showed no signs of abating — his place being taken by Fumio Mutoh, while Brodie was left to ponder travelling halfway round the world for just a few practice laps.

Trouble struck several teams once more in the warm up, Sears having still more gearbox anguish and the Australian Starion breaking a piston. The Colt crew buckled down to getting a new engine in the car, and made it as the cars were sitting on the grid with just five minutes to go. Ten minutes later their race was over, the new engine — a local unit — not compatible with the management system in the car . . . More disappointed visitors.

From the rolling start, the Volvos headed off on their merry way, although for that first lap Takahashi in the Starion tried to hang on to no avail. Quite quickly Muller gave notice that he had no intention of following Brancatelli around and took the lead, although 'Branca' was able to hold on in his team mate's slipstream, even though both he and Lindstrom later expressed the belief that their car was not as powerful as it has been this year in Europe.

The Volvos were never going to be headed for the rest of the afternoon and they ran smoothly throughout, in a race of their own while everyone else did their best to keep up. It was no easy task. Takahashi was shadowed early on by the Nakaya Starion, making it a nice, neat race: two Volvos together, with two Colts following on at a distance. Tohira quickly got the better of the Nissan Skyline brigade to hold a rather lonely fifth place, but behind him a fine battle developed between the Nissans of Hasemi and Koma with the Nagasaka BMW just ahead of them.



Nakajima proved rapid early on before a delay for tyres dropped the Civic down the order.

Sears spent the early laps shadowing the battle, gradually pulling in Koma, whom he passed in a very late braking manoeuvre at the chicane on lap 22. Sears came steaming up, braked impossibly late and so scared the poor little Japanese man that he went off in surprise, leaving David to take seventh place.

The Nakaya Starion was the first car to hit trouble and called into the pits on lap 29. As it turned out this was the only Starion that would make the distance.

The little Honda, with Nakajima driving, made meteoric progress in the early laps, but Satoru had to call into the pits on the 23rd lap when his tyres began to delaminate. Once a new set was fitted he was away and chasing, although the early delay was going to take a lot of catching up.

By now they were all getting pretty spread out at the front. Muller was still running with Brancatelli right behind him as they threaded their way through the traffic. They had actually begun lapping the slowest cars on the third lap, and at times the speed difference between the leaders and some of the slower Japanese machinery was hair-raising to watch — upwards of 50mph in some cases. One thing was for certain: the Volvo men would have to keep on their toes. Behind the Volvos, Takahashi was running by himself but the BMW and the two Nissan Skylines were still fighting it out for fourth, although their private battle was interrupted on the 22nd lap when the leaders came streaming by. By lap 42 the Volvo duo had lapped everyone, a task aided when on the same lap the third placed Colt blow itself up as the leaders were about to lap him. The Colt challenge was fading fast. . .

The BMW/Nissan battle was interrupted shortly afterwards as the thirsty Nissans had to come in for their first pit stops, leaving the BMW to take up the vain chase of the Volvos. A couple of laps later Sears brought the Celica Supra in — guess what, gear selection problems, the car having got itself stuck in fifth gear when in fourth place. Although Okamoto tried to get it all going again, his efforts lasted just half a lap before the car stopped out on the track.

The Volvos duly made their first stops on the 50th and 52nd laps: Dieudonné replacing Muller and Lindstrom taking over from Brancatelli, so that once it was all settled again the two leading cars were together once more, and were they fighting it out? It certainly looked like it, Lindstrom looking up furiously in the corners as he tried to find a way past Dieudonné. "Yes, for me it was 100 per cent," said the Swede. "There were no team orders, and we weren't going to do anything silly, but we were actually racing."

The Dieudonné car was clearly quicker in a straight line, although Lindstrom was able to get by a couple of times before Dieudonné once again asserted himself. The Volvos were to make three pit stops in order to get through the five-hour event and, on each occasion, their pit was swamped with local photographers, keen to get these amazing 28secs stop on film.

Really it was, as suspected, rather a dull race. After the second stop, the Lindstrom car was delayed to have some oil added and the remainder of the event saw the little Italian trying to close the gap, which remained at about half a minute to the leading car. By the 82nd lap, the two Volvos had four laps lead on the BMW, while the only remaining Starion had worked its way up to fourth, albeit a lap down on the BMW.

Brancatelli was working hard and, when the leading car came in for its final stop the little Italian stayed out to take the lead, pitting finally with just 15mins of the race to go. 'Branca' gesticulated madly: he was staying in the car, he wanted to win! As it was, he was still some 30secs in arrears as the leading car, driven once more by Dieudonné, crossed the line after five hours of troublefree running.

On the podium, the Italian looked weary indeed, having driven a shade over 3½ hours. First he sat down, then lay back, and for a moment it was all very dramatic as the Japanese rushed an ambulance to the podium and hurried 'Branca' off to the medical centre. But after a couple of hours' rest he was back and bouncing as usual.

In the end, it was something of a cakewalk for Volvo, but just think what might have been. There is enormous potential for saloon car racing in Japan — next year will be very different.

The Advan-tyred Toyota Corolla GT of Keichi Suzuki/Keichi Tsuchiya led the Class 1 runners home with sixth place overall.

FUJI (J)

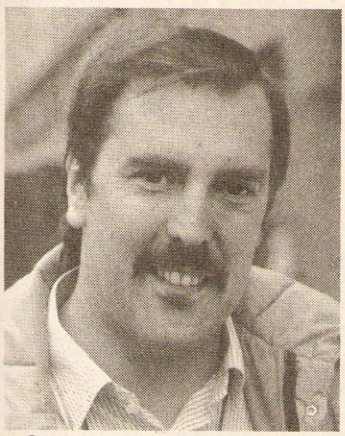
Nov 10, International Touring Car Endurance race, 177 laps — 472.59 miles

Pos	Driver (Nat)	Class	Car	Tyres	Result	Qualifying	Pos
1	Pierre Dieudonné (B) Sigi Muller (D)	3	2.0t Volvo 240 Turbo	P	5:00:18.01	1:37.50	2
2	Gianfranco Brancatelli (I) Thomas Lindstrom (S)	3	2.0t Volvo 240 Turbo	P	5:00:55.98	1:37.38	1
3	Naoki Nagasaka (J) Kazuo Mogi (J)	3	3.5 BMW 635 CSi	Y	170 laps	1:42.64	7
4	Michael Lieu (HK) Akihiko Nakaya (J)	3	2.0t Colt Starion Turbo	Y	170 laps	1:40.08	4
5	Motoji Sekine (J) Minoru Seki (J)	3	1.8t Nissan Skyline Turbo	D	166 laps	1:41.84	5
6	Keichi Suzuki (J) Keichi Tsuchiya (J)	1	1.6 Toyota Corolla	Y	166 laps	1:45.00	16
7	Masanori Sekiya (J) Hitoshi Ogawa (J)	3	2.8 Toyota Celica Supra	D	164 laps	1:46.56	20
8	Kaoru Hoshino (J) Masami Takagi (J)	1	1.6 Toyota Corolla	T	161 laps	1:44.11	13
9	Satoru Nakajima (J) Osami Nakako (J)	1	1.6 Honda Civic	B	161 laps	1:43.34	8
10	Takao Asano (J) Masanori Kimura (J)	1	1.6 Toyota Corolla	Y	160 laps	1:47.33	21
R	David Sears (GB) Yashuhiro Okamota (J)	3	2.8 Toyota Celica Supra	D	51 laps — gearbox	1:43.60	11
R	David Brodie (GB) Kunimitsu Takahashi (J) Fumio Mutoh (J)	3	2.0t Colt Starion Turbo	P/Y	43 laps — engine	1:39.87	3
R	Kevin Bartlett (AUS) Brad Jones (AUS)	3	2.0t Colt Starion Turbo	Y	3 laps — engine	1:43.41	10

Fastest lap: not given. P=Pirelli; Y=Yokohama; D=Dunlop; T=Toyo; B=Bridgestone.

Spot the difference . . .

Allegations that the Audi Sport team switched cars during the Ivory Coast Rally, when Michele Mouton's car ran into engine problems, seem to be substantiated by these photographs taken at different stages of the rally. The first shot shows Mouton's car (IN NA 23) going into scrutineering, followed by team mate Franz Braun's IN YM 86. Clearly visable on Braun's car is a towing eye on the left rear which is not apparent on Mouton's car, while IN YM 86 also has a definite lip at the bottom of the spare wheel well. This is absent on the front car, but by the time that Mouton is ready to start the third leg (right), and with Braun's car having been used for spare parts, IN NA 23 now shows all the characteristics which — at scrutineering — had been visible on Braun's Sport Quattro.



Short to join Rohrl for RAC

Phil Short had virtually resigned himself to missing the Lombard RAC Rally until earlier this week, when an invitation from Ingolstadt arrived, offering him the co-driver's seat, alongside Walter Rohrl in the Sport Quattro S1. Short has been alongside a growing number of top drivers during the eighties, including Bjorn Waldegard, and Hannu Mikkola. The last time that Rohrl took anyone other than Christian Geistorfer on a world series event was on the RAC Rally back in 1977, when he took Willi-Peter Pitz.

Ford's rush job

Ford personnel are still determined that they will give the RS200 its World Championship debut in Sweden next February, despite their admission on Monday that only one of the definitive Group B cars had been built at Reliant's Shenstone plant.

Once the plans to contest next week's Lombard RAC Rally had been scrapped, the team concentrated their efforts on collating the parts necessary for the building of the necessary 200 units.

Ford's deadline for homologation is January 31, just 11 weeks away, which means that around 20 cars per week need to be produced to make the deadline. Ford's spokesman was adamant on Monday that the team would be on the Swedish Rally as they were totally committed to the event.

Kalle joins Stig at Ford

Kalle Grundel (right) has been confirmed as the second Ford driver for 1986, despite the fact that he still has one more event to drive for Peugeot this season. Grundel — 37 — is the current German Rally Champion, but has only contested one World Championship Rally this season, the 1000 Lakes Rally which saw him crash, and continue to finish well up the leader board. Grundel's recent performances on major events have included a number of enterprising rolls — many with his works Golf GTIs in which he made his name — and it will be interesting to see how he adapts to the new Ford RS200, which is expected next year. His co-driver is countryman Benny Melander, who is competing on the RAC Rally with Mazda.

Safety measures

With international attention focused on safety by some worrying accidents through 1985, FISA has established a new list of minimum safety requirements for first category events.

Primarily, organisers must draw up a safety plan for their event and this schedule must be approved by the National Sporting Authority. Before stages start, an official must inspect the test and report to the Clerk of the Course if conditions demand it. Of considerable note is that the minimum requirements for each special stage have now been firmly established and so from January 1, 1986 there must be a doctor, ambulance, breakdown vehicle, and fire-fighting service in attendance. If certain stages are considered as being long, it may be necessary to provide several doctors or ambulances.

There are other stipulations, including ensuring hospitals are alerted during the passage of the rally, and the provision of special areas reserved for spectators. Many of these conditions are already fulfilled, and the forthcoming Lombard RAC Rally is considered as one of the leaders in safety procedures, but this latest edict will bring certain other events into line.

Carlsson moves up

The latest issue of the FISA bulletin shows that Ingvar Carlsson has been promoted to an A seed, and the RAC MSA has therefore reacted and repositioned the Mazda driver at car no 9. Other changes in the entry list include the substitution of the Swedish Juniors with their counterparts from Germany. Vincent Smalley and Steve Mynot will not now be crewing the fourth Subaru so Alec Cannon and Graham Harris will take the start.

Llewellin's star role

David Llewellin put in a storming run on the San Marino Rally at the weekend to finish third overall in an Audi 80 Quattro, behind a couple of Lancia Rally 037s. The car was entered by the same team which gave Llewellin a chance on the San Remo Rally last month, and apart from one puncture — which Llewellin and co-driver Phil Short had to stop and change — it was a highly successful outing, which gave the pair a convincing victory in Group A.

"The Italians took to David's driving style," explained Short when he returned to this country on Monday, "and they really treated him well. We set some good times, and took fastest time on one stage." The result was enough to delight the Italian team, Llewellin beating Ormezzano's Opel Manta 400 into fourth place.

One of the problems which faced the Audi crew was the mountainous nature of the stages which saw the 80 Quattro struggling at times. But when Maurizio Pregliasco retired after the first stages with an engine problem, the British pair moved into a top three position which they retained until the finish.

Volkswagen name their Junior Team for 1986

The drivers in the Volkswagen Junior Rally Team were announced at Birmingham's NEC last week, the four having been selected from over 350 hopefuls in recent weeks.

A huge response had been promoted by the £250,000 package on offer for next year's National Rally Championship, each driver being given a VW Golf GTi, complete with fully equipped service barge and trailer. Spare parts, tyres, engineering back-up and on-event support was also included in one of the most attractive opportunities ever offered to young drivers.

The judging panel of Steve Bagnall (VW Motorsport), David Sutton (David Sutton Motorsport) and John Horton (National Championship co-ordinator) were joined on the four selection panels by Chris Belton of the RAC MSA and representing England; Jonathon Lord from the RSAC and representing Scotland; Roger Evans from Wales and Brian Patterson from Ireland.

Each of the candidates was put through a rigorous test session, including a high speed question and answer section to judge their mental agility and also their ability to promote themselves and the company.

At the beginning of last week, the drivers were selected, according to their nationality and the lucky winners were, from England, Simon Davison; from Scotland, Callum Guy; from Wales, Steve Davies and from Ireland, Robin Phillips.

Davison (22), is by far the most experienced having spent some time with the British Junior Team and driving a Group A Astra GT/E to the National Championship Group A title. Davies (22) contested the 1985 Nova Junior Cup, while Guy (24) has spent his time in Scottish events with a Talbot Avenger. Phillips (22) has concentrated primarily on driving a quick Samba in Ireland but has also tackled a few BTRDA events on the mainland. Probably the quietest of the group, the lad from Newtownwards is tipped as being the fastest of the four.

In addition to the superb package on offer, the four will chase points among themselves, the most successful driver claiming a fully supported entry on next year's Lombard RAC Rally with his Golf GTi.

Before the opening event of the 1986 season, the Skip Brown Rally on February 8, each will be put through a training session after which they will draw lots for the car that they will campaign for the season. Regular training sessions will take place throughout the season.

Extra support for the programme comes from Shell Oils, Michelin, Hella, BBS Wheels, Sachs and Champion.

VW Junior Team. L to r: Steve Davies, Simon Davidson, Robin Phillips and Callum Guy.

Group A interest

A couple of four-wheel drive Mazda Familias are expected to appear on the Monte Carlo Rally running in Group A specification, and boasting around 230bhp. Mazda Rallye Team Europe have traditionally contested this first World Championship counter with saloons, aiming for a class success, but this time, the promising 4WD 323-based Familia could be well inside the top 10 if the conditions are bad.

Ingvar Carlsson is expected to drive one of the cars, although with his current co-driver Benny Melander heading for Ford in 1986, the Swede must now look for a new partner. Apparently, the driver of the second Familia has still to be nominated.

Also on the Monte Carlo should be Group A cars from other factories including Volkswagen, who are tipped to sign young Swede Kenneth Eriksson following Lars-Erik Torph's departure for Toyota. The Golf GTI has proved highly competitive in the group in recent years, while it is rather more difficult to gauge the potential of the trio of Fiat Uno Turbos. Michele Rayneri, Allesandro Fiorio, and Tiziano Chiti should all be on first event, with the drivers hoping to pick up points in the newly instigated Group A World Championship for Drivers.

This new series will be contested over the same events which make up the Drivers Championship, but to qualify for the title, a driver must contest one event outside Europe. His best six scores will count, and points will be awarded for position in the Group on a scale of 10-8-6-5-4-3-2-1. In addition to the overall competition, there will be capacity classes with the breaks at 1300cc and 2000cc points awarded for these on a scale of 3-2-1.

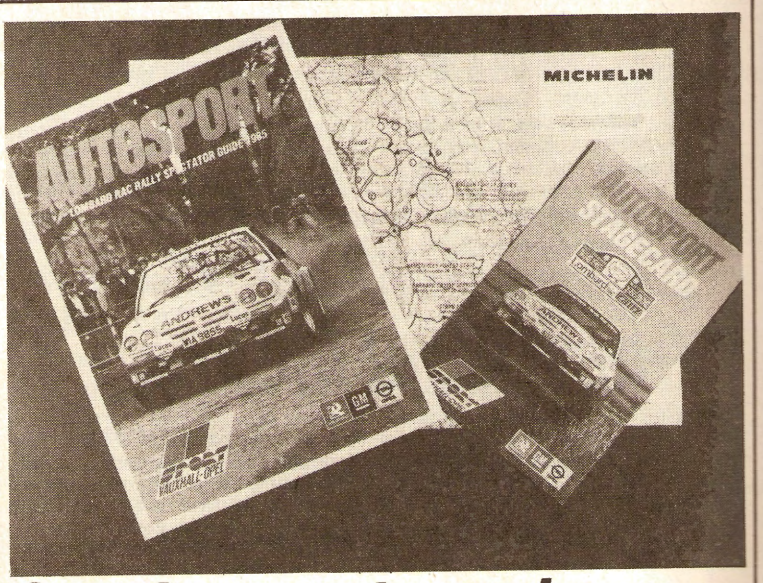
Along with the announcement of their Volkswagen Junior Rally Team (see separate story), VAG stated on Friday that they expect to contest the 1986 Shell Oils Open Championship with a Sport Quattro S1. Although some details are still to be settled, it seems almost certain that Hannu Mikkola will be at the wheel.

Germans are in

As predicted in *Special Stage* last week, the Swedish Junior Rally Team have withdrawn their Lombard RAC Rally entry due to lack of finance. However, to ensure a healthy amount of Junior action in the British forests, the German team have opted to send three drivers to the event.

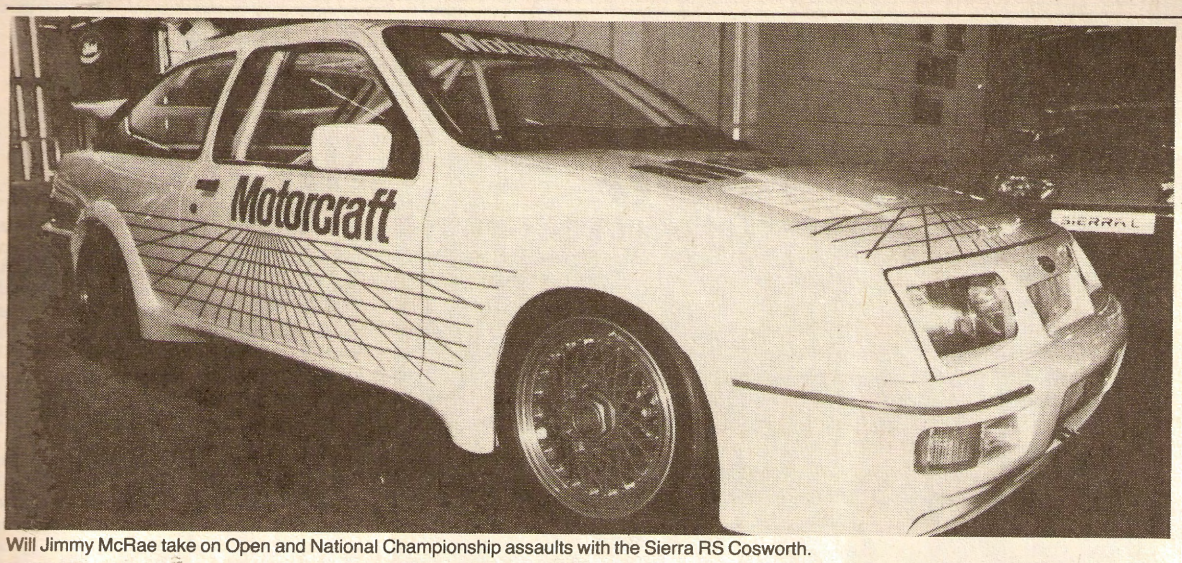
With backing from Sealink British Ferries, Wolfgang Boller, Gustav Edelhof and Franz Aman — in a Toyota Corolla GT, VW Golf GTI and Ford Escort RS Turbo respectively — will represent their country and Mike Thompson Rallying will be lending on-event support.

The German team first appeared in Ypres earlier this year where, despite showing promise, they fell victim to FISA's decision to make all junior team drivers into B-seeds. Now they will be seeded in accordance with their standing and should be able to show their potential without undue pressure.



Coming next week . . .

Next week's issue of AUTOSPORT (Thursday, November 21) will contain our comprehensive guide to the Lombard RAC Rally. A 64-page pull out supplement contains details of the teams and the drivers, coupled with a host of interviews and features enabling you to fully appreciate the atmosphere of Britain's largest motor sport event, and the final round of the World Rally Championship. A pocket size *Stagecard* features details of where to watch and, in conjunction with Michelin and General Motors, we include the most detailed route map that we have ever produced to give you an overall picture of the four-day event. Demand is expected to be high so order your copy now . . .



Will Jimmy McRae take on Open and National Championship assaults with the Sierra RS Cosworth.

National RS Cosworths?

At the end of last week, Ford held a meeting with several dealers with a view to discussing their plans to rally the Sierra RS Cosworth in 1986 (*Special Stage*, November 7).

Around 20 dealers were present, although we understand the company only plans to release eight of the powerful turbocars for use in the 1986 National Rally Championship. Initially, the cars will be homologated into Group B, but Group A is the long term destination for the car.

"Details are still not fixed," explained a spokesman on Monday, "but we will be encouraging dealers to enter the car next year. We would hope to link a tyre deal with them, I imagine, but the whole thing depends on the amount of dealer support. There are more exploratory meetings planned for the near future, now that our first move has been made."

A whole string of drivers have been linked with the programme. Rumours suggest that Louise Aitken-Walker, Willie Rutherford, Phil Collins, Rob Stoneman, Charles Eveson and Dougie Watson-Clark are on the list, but the most intriguing name is that of Jimmy McRae, possibly taking on a joint Open and National Championship attack.

The Ford spokesman would not comment on any particular driver but was stunned into complete silence when we suggested that a works supported trip to the Himalaya Rally had been suggested as the prize for the best performance in the challenge . . .

Colway Tyres to back '86 Nova Cup

Colway Tyres have announced that they are to sponsor the Nova Junior Cup next year, in accordance with their policy of providing cheap tyres to club drivers on a limited budget.

The Nova series, which has just completed its first season, is included as part of the BTRDA championship and is open to drivers who are under 25 on January 1. The cars are the 1200cc models — in either saloon or hatchback specification.

Naturally, the use of Colway Tyres next season is compulsory although registered drivers will receive a free set of covers on the second round of the championship. Series co-ordinator is Andrew Duerden, Hadley House, Great Glen, Leicestershire LE8 0GN. Tel: 0537 592640.

■ Fred Henderson's Colway Tyres operation will be providing extensive support to crews on the Lombard RAC Rally with 16 different tyre types available. With an average cost of £18-20 per cover, the Colway range is popular with club drivers and it is advisable to pre-book requirements for the event with Henderson. He can be contacted on 0385 46319.

TV-am adopt Metros

The Austin Rover team of Computervision Metros has been adopted by TV-am for the duration of the Lombard RAC Rally. Next Wednesday (November 20), the cameras will be bringing a preview of the event with respect to the team's preparations while Friday mornings programme will detail the operation of a special stage.

Once the event is under way, regular updates and live transmissions will be slotted into the sports programmes with a review of the event on Saturday morning, November 30. Full details of the coverage will be included in our Spectator Guide in next week's issue.

Holt's Nissan 240RS

Ian Holt, who has spent this year at the wheel of the Tatham Tyre Service Escort RS, has bought the Nissan 240RS that took Mark Lovell to the Shell Oils/ Autosport RAC National Rally Championship.

Plans to switch to a Toyota were scrapped when the Japanese company opted to curtail their rallying activities for the immediate future, the Blydenstein built Nissan coming on to the market at the right time.

Holt intends to contest next year's Shell Oils RAC Open Rally Championship with the car, a shakedown run for both the Nissan and co-driver, Dave Orrick, being planned for the forthcoming Galloway Hills Rally.

Mike Stuart has been confirmed as the driver of the Computervision Rover Vitesse on the Lombard RAC Rally. Tom Walkinshaw Racing entered a car in case the Metro 6R4 failed to make its homologation deadline, while Stuart entered his own Vitesse for the rally. Last week, however, the switch was made and the Chester based driver will receive another boost following his excellent form on this year's Open series.

Bravo Kyosti . . .

Kyosti Hamalainen heads a three car Finnish team on the Rothmans Bravo RS Cosworth in 1986 (*Special Stage*, November 7).

1 in the Euro series, boasts a 50 strong entry, including Jenny Nadin and Colin Wilson in a Peugeot 205 GTI.

The rally has 30 stages, totalling 264 Kms and only has three service halts and a five hour break in the middle.

Rohrl wins

Walter Rohrl gave the Audi Sport Quattro S1 its first run with the revolutionary semi-automatic gearbox at the weekend, utterly dominating the Semperit Rally and winning by 18m37s! With most of the Ingolstadt staff unavailable for comment earlier this week, details of the progress on the Austrian event were sketchy, but it seems that sufficient progress has been made with the unit for team boss Roland Gumpert to send Rohrl to the forthcoming RAC Rally.

Milestone clincher

Four drivers go to this Saturday's Milestone Stages with a mathematical chance of taking the Nicolet Welsh Stage Championship, although Chris Nixon is the realistic favourite for the award.

With six class wins from the 1300cc Escort, Nixon holds a six point lead over John Roberts in the 1600cc version with Phil Jones and Jon Ballinger the other drivers with a chance of snatching the title.

First away from the start line at 11.00am, will be Mike Edmunds, returning after too long a lay off, in an ex-Kevin Curran Escort.

Llandegla Forest, north west of Wrexham, is the venue for the action with spectators welcome at 117/228520 to view the cars on several occasions.

Leading entries

1, Edmunds/Stanford	Ford Escort RS
2, Jones/Fellows	Ford Escort RS
3, Roberts/Evans	Ford Escort RS
4, Roberts/Jones	Talbot Sunbeam
5, Trippas/Hogan	Ford Escort RS

BRIEFLY

■ Citroën's prototype rally car, the BX 4TC, is expected to make its debut on the Rally Autodrome di Monza over the weekend of December 7/8. Jean-Claude Andruet will drive, before heading for the Alps where he will begin his practice for the Monte Carlo, the car's first official appearance.

■ At this weekend's prizegiving for the Fiat 1301 Challenge, the company are expected to announce ambitious plans for the future. We anticipate a large cash bonus for the 1986 series, while plans for a National one-make contest in 1987 are apparently under consideration.

■ Fleming Thermodynamics Ltd have confirmed that they now possess a Metro 6R4 in order to carry out a development programme next season with the Sprintex Supercharger, as detailed in last week's *Special Stage*.

■ Keith McAllister has decided to fit his Escort with a short stroke 1600cc OHV engine for next seaons, due to the BTRDA series upgrading of BDA units. He now hopes to ensure class success in the BTRDA and *Roadsport* Championships.

■ Geoff Tunnard ventured to the popular Rallye Koln-Ahrweiler at the weekend and emerged with eighth place. Jens-Ole Kristiansen took his Danish 205 Turbo 16 to a predictable win, while Stig Andervang's Ford Escort RS Turbo finished sixth.

■ Screensport's *Turbo* cable TV programme tomorrow (Friday) will feature the Ivory Coast Rally. The programme begins at 5.10pm.

By KEITH OSWIN

The Lancia team had come to Britain in order to put the four-wheel drive Delta through its paces prior to the RAC. Below: 'Chauffeur' Markku Alen.

S4: RAC winner?

Despite leaving Biggin Hill in clear weather, by the time our twin-engined Cessna began its descent to Carlisle, the clouds had gathered and visibility was decidedly poor. But, for the purpose of our trip, this was perhaps no bad thing. Our destination was Eskdalemuir Forest where the Lancia Martini team were carrying out their final preparations with the new Delta S4, before its debut as next week's Lombard RAC Rally.

The trip by road from the airport to the forest confirmed our worst fears. A heavy drizzle had set in, and the Delta's four-wheel drive systems would be put to good use. Markku Alen was our 'chauffeur' for the day . . .

The little farmyard seemed strangely ill at ease with the Lancia team. Its rough, muddy surface and elderly buildings clashed with the bright colours of the service vehicles. Abarth had brought a large truck which housed a mobile workshop for the occasion, while Pirelli had also made the trip from Italy with a vast stock of their latest forest covers. The car had found an unaccustomed home in a dry, but thankfully clean, cowshed!

By the time our party arrived, the test was well under way and, indeed, had been for a couple of days with chief test engineer, Giorgio Pianta at the wheel. The team's star driver had arrived one day earlier and was well acquainted with the loop of forest that was situated a few hundred yards away. So frequently had the team been round the test stage that co-driver, Ilkka Kivimaki, had prepared pace notes to ensure both consistency and safety as they tried different items on the car.

Alen was not happy. "We have big problems here," he explained in that deep voice. "The engine is not good and the handling — oi, oi, oi . . ."

While the problem with the engine has since been traced to a broken intercooler, it was never resolved on the day — nor indeed did the team seem unduly keen to do so — and Alen's worries about the successor to the Rally 037 were made clear. "I want 500 horsepower before this car really works," he continued. Pianta explained that he already had 470bhp which was nearly enough but Markku disagreed. "This engine is only giving 400 to 430bhp today, I think. I need at least 50 horsepower more if I am to do the RAC Rally — better still with 100 more."

At the time of course, Alen's future with the Lancia team was in some doubt. A link with Peugeot had been made in recent months and speculation was rife that the man viewed as the most Italian of the Finns — and it is difficult to decide which characteristic comes through stronger of the two — may be about to switch camps. Markku answered any questions on the matter with a dismissive, "Maybe I go, maybe I stay . . ."

Since the car's first rally appearance, earlier this year on the Mille Pistes, changes have been made to the bodywork. Gone is the flat front and radiator grille from the roadgoing version of the S4 and, in its place has come a more rounded frontal area with two large holes cut in a very flexible panel to accept the headlights. Designer, Sergio Limone, joked with journalists that this was not

made from Kevlar, only of paint! Somehow its alarming flexibility hardly inspired confidence . . .

Also, to aid aerodynamics even further on this very square looking car, the rear aerofoil, mounted at the rear lip of the roof, has been made smaller, apparently with no loss of downforce. Cooling to the engine bay is achieved by use of the two large air scoops behind the rear 'windows' and it was surprising to note that there was no form of filter to keep out unwanted dirt or rocks from this fragile area.

The spartan interior of the latest supercar from Turin seems to be a little roomier than that of the 037. Nevertheless, the proverbial moggy would be quite safe from those with an inclination to whirl the beast around! This particular example of the Delta was clearly a test car as much of the co-driver's armoury was absent. The ubiquitous Sparco seats offer customary support, the occupant's names stitched onto the head restraints indicating the personal nature of such items these days. One important factor that we noticed later — when subjected to Mr Alen's talents behind the wheel — was that Lancia have overcome the problem of ventilation within the passenger compartment exceptionally well. This is something which other teams are still coming to terms with.

With the front and rear sections removed for easy access by the mechanics, the structure of the car was worryingly revealed. The 037 had caused a few hearts to flutter as its tubular spaceframe was discovered and it had been fragile at times. Just how strong was this car? Up front, the Delta seems much the same as its predecessor. In fact, a colleague opined that in the new car, the strongest thing between the driver and the hazards that lie ahead is the spare wheel . . .

The day's test session was confined to sorting the settings for the differentials. Pianta has tried various options during the car's formative months but is now beginning to settle on the Ferguson system. "I think it is best that we have the same make of differential all through the car," he considered. "That way we know just what we are doing."

With a soft, 45% unit at the front of the car, Alen was decidedly unhappy with the handling. "It wanders about all the time, even on the straights and this is not so good. OK, it helps in some of the corners, but I want to be confident at all times, especially on the long straights in places like Dalby Forest."

And so, on just one of many trips back to the cowshed, the differential was switched to a harder setting, this time approaching the maximum 75%. The mechanics relished this opportunity to work at a leisurely pace, without Signor Kivimaki hovering over them with stop watch in hand . . .

This time, Alen was happier with the handling and it seems likely that the car will appear in this set-up when it leaves the start in Nottingham. He admitted that the effort required to keep the car under control was much greater but, the boost to his confidence was quite considerable.

Lunchtime at the nearby hotel gave the mechanics a chance to switch gearboxes as Markku had snapped the selector off the original unit. It also enabled the driver, to further consider his prospects for the RAC Rally.

One of the most important factors on any blind rally, such as the Lombard RAC, is the ability of the car to react to surprise situations. This is not something that turbocars are noted for, the driver usually having to rely on left-foot-braking to keep the turbo spinning. On the Lancia, the problem has been attacked in a unique manner by the comination of both a supercharger and turbo in the same engine. The notion is that the Volumex supercharger, as used on the 037, operates at low engine revs when a turbo is unable to function properly, allowing the turbo to take over once the revs build up. A glance at the rear of the Delta shows twin exhaust pipes of different diameters, one for the supercharger, the other to cope with exhaust gasses from the turbo.

Rally spectators will now have to get used to another sound as their heroes approach. The Delta combines the cammy sound of the racing 16-valve engine with the whistle and popping of a turbo unit . . .

With lunch (and the gearbox change), satisfactorily concluded, Alen once again climbed behind the wheel of the

Lancia, this time to act as chauffeur to the assembled press. By now the Eskdalemuir forest road was badly cut up, testimony to the traction of the current four-wheel drive supercars (Toyota had recently been testing their MR2 based option on the same loop). Alen had reached the end of his learning with the car for the present, but he was anxious to please everybody, even though he was just as keen to be back in the warmth of his home in Cookham Dean. "I show you this car," he said, "but I think that we shall have to go slowly."

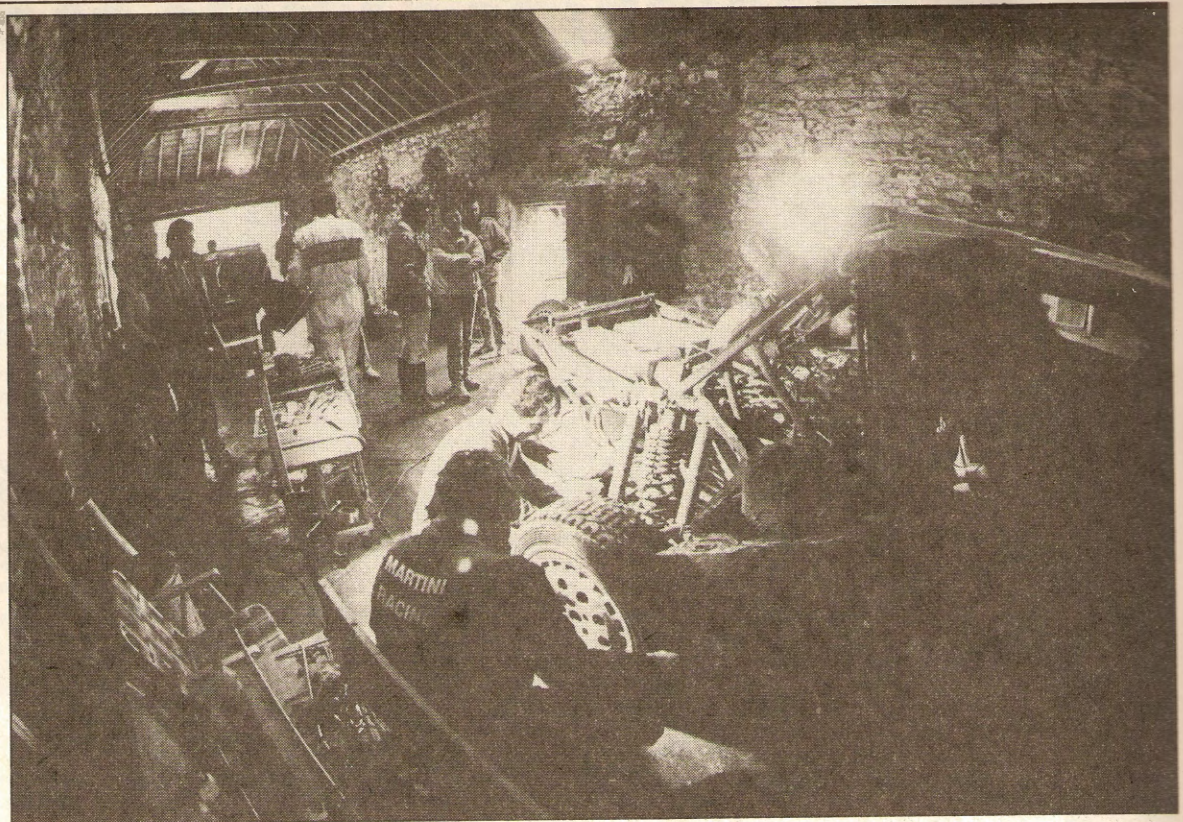
Immediately apparent, both to the passenger and to the motorist who stopped at the entrance to the forest to investigate the red, white and blue car that had just turned around in the gateway, was the immense traction that the four-wheel drive system provided. Powering away up the long fast right hand bend, Alen was quickly up through the gears and into fifth within yards. A tight hairpin left loomed large and the car was stopped effectively by the pilot, even though brake problems encountered on a previous run had cost some efficiency from the Brembo units.

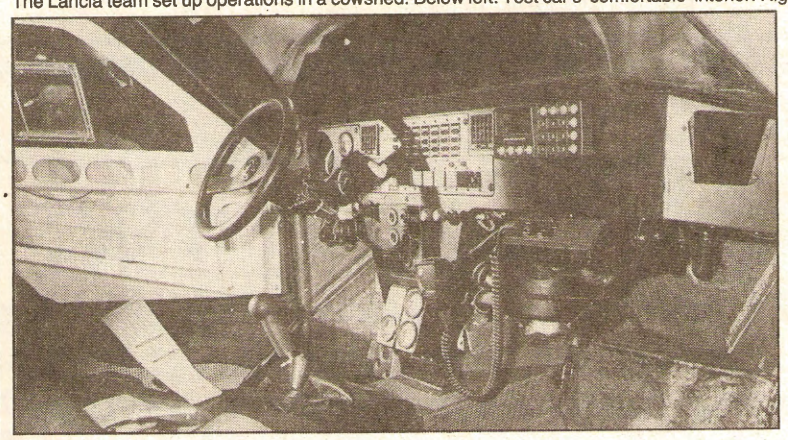
But, just when the car's twin power system should have come into its own, it let itself down. Out of slow hairpins, the supercharger's role is most important. On this occasion, the car fumbled away from the corner, power picking up soon afterwards but certainly in less than impressive style. Markku simply grunted into the intercom, but he was clearly unhappy.

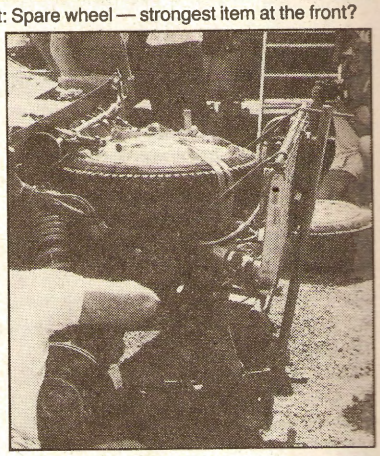
Nevertheless, the car was soon shooting down the straight, bucking and bouncing as it went. Once more, hidden vices manifested themselves as the back end proved to be exceedingly nervous, kicking sideways if the power was applied when the suspension was light. Markku agreed that this was somewhat worrying at speed over bumpy stages.

A hairpin right was fast, very fast, approaching and Markku began braking early. It was soon apparent why caution was sensible. The two ruts that had been carved through the Scottish mud were almost 18ins deep. Markku eased the Lancia through the hazard, quietly laughing — perhaps contemplating the fortunes of the next team to visit the venue — before planting his right foot hard on the accelerator and sending the projectile shooting forward again.

With the turbo banging away behind our heads, maximum speed was again quickly reached, Markku balancing the car through a series of fast sweeps with a combination of throttle control and left-foot-braking. The road swooped downhill and a vicious dip in the road was taken virtually flat out. I recalled an occasion prior to the 1982 Lombard RAC Rally when Markku treated me to a ride in the 037. Even on relatively smooth surfaces, the car vibrated harshly and the prospect of tackling an RAC Rally in such a boneshaker was less than attractive. This time, however, the car proved stable and amazingly comfortable, few vices being displayed. Certainly, the suspension of the Delta is far superior to that of its predecessor, and this will be an important factor on World Championship rallies where the physical strain on crews is as potentially dangerous as the hazards, outside the car.







The Lancia team set up operations in a cowshed. Below left: Test car's 'comfortable' interior. Right: Spare wheel — strongest item at the front?

Straightline stability was a problem at first, Alen experiencing serious car wander.

We were, by now, approaching the hairpin bend that had marked the start of our run, this time it was a downhill right-hander, preceded by an equally tight left. Having watched earlier runs with some amazement as the tail of the Lancia had kicked out wide at the last moment, I was intrigued (if that is the right word), to sample the effect for myself.

The Delta displayed rather too much understeer as the first corner was approached, a feeling confirmed by my colleagues later and admitted by Markku, but the car was easily provoked into oversteer by firm application of the right foot on the accelerator. A short burst of speed carried us to the final hairpin and then the car was blasting back down the hill to rejoin the rest of the group in a glorious slide to a standstill.

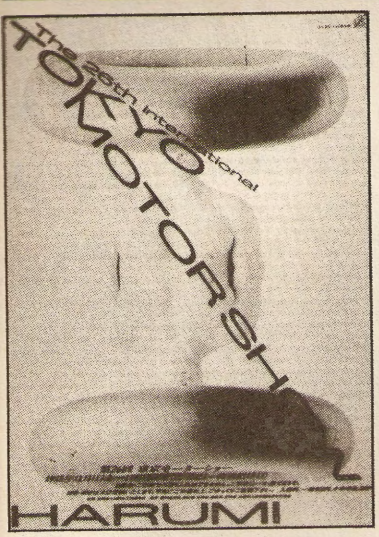
At the end of his run, a colleague turned to Markku and immediately commented on the lack of power. The tall Finn grinned and began talking animatedly. At last he had found someone to agree with his view. It was an opinion that several of us shared, even though Giorgio Pianta seemed happy enough. For sure, the car is generally quick but not as quick as it could be, one felt. With hindsight, the broken intercooler would have made a lot of difference to the top end power. For myself, I was more worried about the lack of urgency at low revs — just when it is most needed. From the start line, with the revs up and the clutch suddenly dropped, the acceleration is incredible. But, in this era, every corner should feel the same as the car pulls away.

The unfortunate Renault hire car that Markku insisted on driving back to the airport to start the flight south had never been driven so hard in its short life. "My Lancia is too slow," boomed Alen from behind the wheel, "but this car makes it feel good!" His humour had returned and it will be good to enjoy watching him, and the rest of the Lancia team in action on the RAC Rally. "I think that the car is OK for the top three," he continued, "but I always said that I wanted 500 horse power. It must come . . ."

Since that test day, the team has been working hard to improve the car and, on its International debut as a Group B car, the Delta was a good way better. Now, the car boasts a genuine 470bhp — closer to Markku's optimum figure — and he is much happier. His signature is once more on the Lancia contract and, just perhaps, he might do better than merely finishing in the top three of the RAC Rally. He would certainly make a popular winner, having tried so hard in years past wih the Stratos . . . ■

By MIKE McCARTHY

Technological Tokyo!

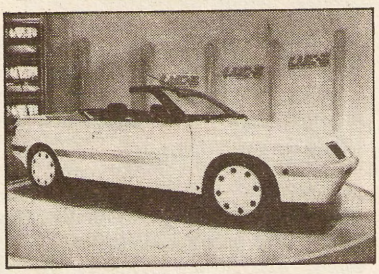


Those of us who went to the Frankfurt Motor Show came away dazzled by all the Teutonic technology. Then we went to the Tokyo Motor Show . . .

If only a fraction of what the Japanese had on display ever gets into production we will see the centre of technological research and development move from Europe to the East — if it hasn't done so already. They make the efforts of the Europeans look almost puny. They've long gone past simple four-wheel drive — now it's four-wheel steering as well, possibly even electronically controlled, (everything, but *everything*, is electronically controlled). High output, high efficiency engines abound, even on cooking machinery (which makes Japan's maximum speed limit of 100kph look positively obscene). Multiple cams, multiple valves per cylinder, turbochargers with or without variable characteristics, super-complex engine management systems (via electronics again), astonishing suspension layouts, ultra-low drag bodies using all sorts of materials — they've got it. What's more, much of this advanced technology seems to be but a step away from production . . .

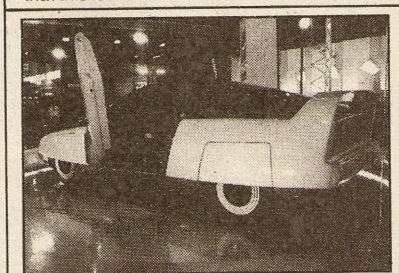
In spite of which, though, the actual cars the Japanese actually make, those in mass production, are still mundane, quite ordinary state-of-the-art tin boxes. But the future — ah, that future lies in the Land of the Rising Sun. Without doubt.

Nissan had not one but four concept cars on display, though one was the MID-4 which we've already seen at Frankfurt and London. Undoubtedly the most fabulous — in the true sense of the word — was the CUE-X (above), a car for the 'successful entrepreneurial urban executive'. It fair bristles with high-tech: the beautifully clean, simple, elegant shape has a Cd of 0.24 under normal running, rising to 0.279 when electronically controlled front and rear spoilers rise, and to 0.302 when the rear spoiler only is lifted to act as an air brake. Then there's the engine, a twin-cam, four-valve 300bhp V6 unit with twin variable nozzle ceramic turbochargers, variable valve timing and a 'drive by wire' throttle. Of course there's 4WD, but torque is split electronically between front and rear wheels, and can vary from 0/100 per cent f/r to 60/40 per cent f/r, depending on conditions. Naturally, the auto 'box is electronically controlled too, as is the four-wheel steering, the air suspension and anti-skid system. Then there's a flexible multi-function display, a digital tyre pressure display, a satelite navigation system and a laser radar device which measures the distance to obstacles or vehicles in front. A Nissan executive was at pains to point out that this is more than a dream car — everything on it has production potential in the near future. Mercedes and Jaguar beware . . .



At the opposite end of the spectrum was the Be-1. This is a 'casual car for relaxation . . . (with) . . . a tailor-made touch that gives it human warmth'. In fact it's a curious little beasty with styling that harks back very strongly to those small Japanese mini-cars from the fifties and sixties. Rather more our style was the LUC-2 (above centre), a lightweight two-seater sports car powered by a 1.6-litre twin ohc four-valve engine and featuring a neat fold-down roof.

There was an awful lot, too, on the production car front. Of most interest to us was the Auster (right), the car which will be made in Washington for the UK market but not with that name — too close to Austin! It will be available in 4-door, 5-door and coupé forms, with 1.8-litre normally aspirated, 1.8-litre blown and 2-litre diesel engine (but not, unfortunately, the twin-cam 160bhp unit). It is, in fact, a replacement for the Stanza, though it owes more to the Bluebird mechanically, and Nissan have gone to great trouble to 'Europeanise' the car.



Mitsubishi weren't going to be left out of the concept/dream car race, of course, so the MP-90X (above left) also bristled with technology. Surprisingly the engine is a mere 1300cc unblown unit, and there's no 4WD — its a front-wheel drive car, with MacPherson struts all round. But there the ordinary ends — how about an 'Active-Control' system that operates on the engine, suspension, steering and brakes? It controls power in the event of wheelspin, gear changing, roll, lift, dive, raises the body on rough surfaces, lowers it for less drag at high speeds, maintains a constant height no matter what the load, 'remembers' suspension settings, controls the four-wheel steering (wheels turn in opposite directions at low speed for parking, in the same direction at high speed for manoeuvrability) acts as both anti-lock braking and anti-slip acceleration, and keeps pedal loads constant. All done by electronics, of course. The plastic panelled body has a particularly low drag factor of 0.22, and there's a complex information and communication system.

Reverting to normality, there was a real hoot of a car, a prestige device called the Debonair (centre). Under the bonnet there's a new 3-litre V6, but it's what it powers that's so funny: the body shape is a throw back to the sixties Yank tat, and the wheel trims are those nasty fake chrome wires that used to be so popular way back when. Ugh . . .

Others on show include a neat Targa-topped version of the Mirage (above) with a squared off top (hence the name Kamm Top) and — wait for it — a pink Minica, called the Winky (yes, really . . .) for the 'Intellectual and active modern female driver'. How's that for a bit of female chauvinist sowery?

JAPANESE NOMENCLATURE

These are just some of the extraordinary names for cars on display in Tokyo:

Mazda Bongo Brawny Bird-watcher.
Suzuki Mighty Boy Pantry Supreme (made by Lada).
Daihatsu Rocky (to be followed by Rocky II etc).
Toyota Cresta D (no Vauxhall ever had a twin cam, twin-turbo 185bhp straight-six under the bonnet . . .)
Toyota Stout.
Toyota Blizzard.
Mitsubishi Canter, Fighter and The Great, plus the Aero Queen bus . . .
Isuzu Piazza Nero (a fiddly looking car . . .)
Isuzu Bighorn (a reference to its hooter?)
Honest — none invented . . .

Toyota's stand was the most bewildering. Apart from their two concept cars, they displayed the most amazing range of advanced engines ever seen, not to mention a range of cars of which I recognised only one — the dear old Century which dates back to 1967!

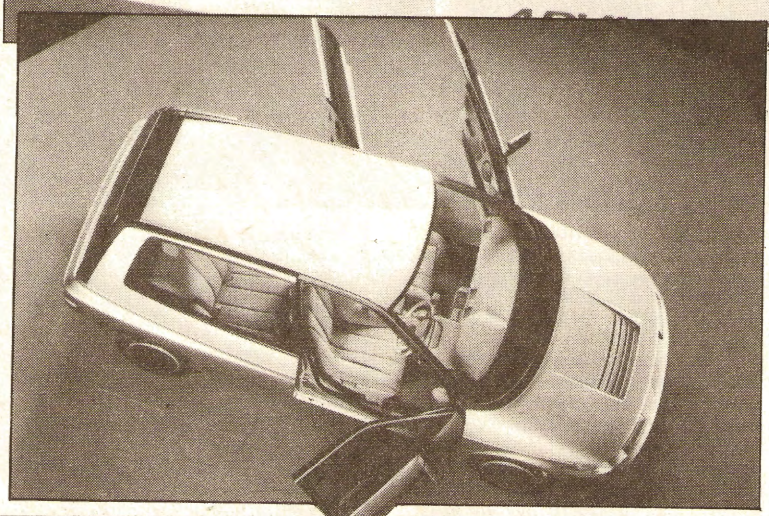
Star of the stand was the FXV (right), a dream car to match the Nissan CUE-X. Curiously the engine is placed between boot and rear seats.

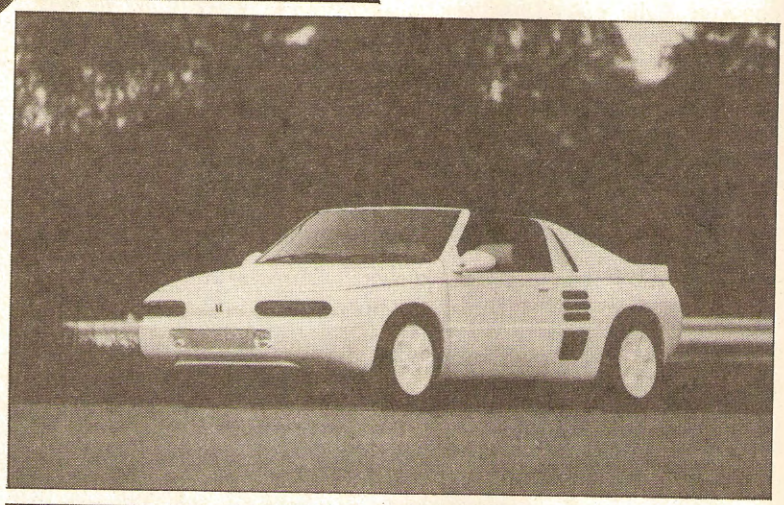
That apart, though, the FXV is all mega-high-tech. The engine is a 2-litre, twin-cam, four-valve, turbocharged *and* supercharged four set transversely, producing 230bhp. It's a partial lean-burn device with a Karman vortex air flow meter (which uses light passing through vortices to measure the air flow into the engine) and a distributorless ignition system. The FXV is a genuine four seater with a drag factor of 0.24.

Toyota's other concept car was the AXV, a 'family car of the near future'. In spite of its compact size the drag factor is only 0.26, and one novel feature is three doors, two on the passenger's side and one on the driver's (below right). The engine is a three-cylinder 1.1-litre turbocharged Diesel giving 56bhp and the transmission is a CVT belt-driven device. Both FXV and AXV are stuffed full of technical oddities such as ceramic fibre reinforced magnesium alloy pistons, forged aluminium or glass fibre suspension arms and so forth. After all that, the pretty Celica GT-four drophead (below) with four-wheel drive looked mildly boring . . .

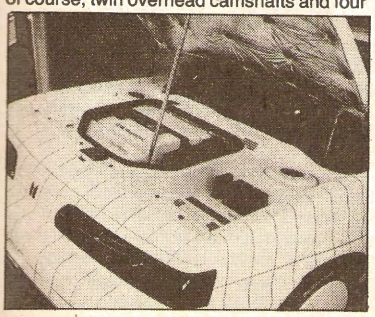
And then there were the engines. In production already in the big Crown model is the 1G-GZEU which is a 2-litre straight six with twin cams, 24 valves and a Roots supercharger, giving 160 bhp at 6000rpm. The blower is engaged and disengaged via a computer-controlled electro-magnetic clutch. Then there's the 1G-GTEU which is similar except that it features *twin* turbochargers to give 185bhp at 6200rpm.

There's also a turbo-blown version of the big 3-litre straight six with an air-to-air intercooler; a 2-litre four with twin overhead cams, 16 valves and turbocharger with water-cooled intercooler; a 1600cc four with twin overhead cams, 16 valves, a mechanically-driven supercharger and air-air intercooler; and finally a little 1300 also with twin ohc, four valves per cylinder and an air-air inter-cooler turbocharger.



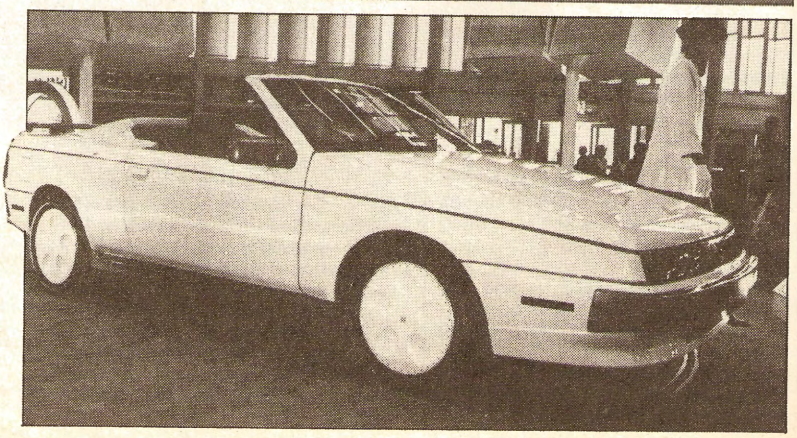


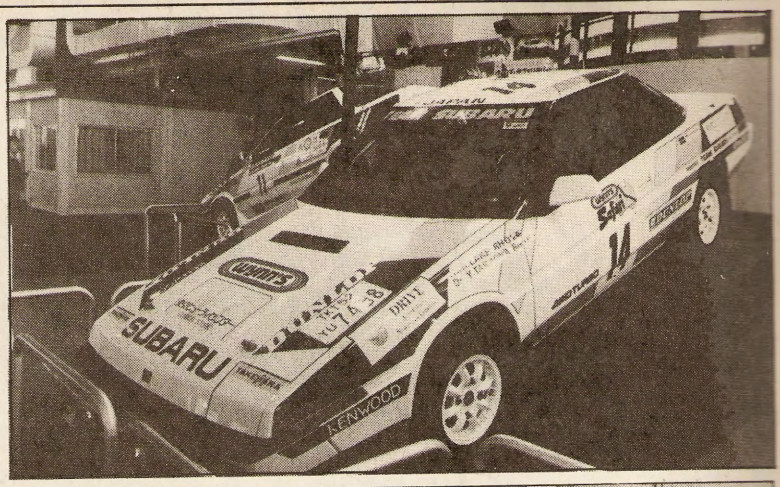
Isuzu's efforts on the dream front centred on two models, one for show, one for go. The 'show' car was the COA-II (above right), a mid-engined, fairly sleek two-seater (Cd unspecified), powered by a 1.6-litre four with, of course, twin overhead camshafts and four valves per cylinder plus turbocharger and intercooler giving 130 plus bhp.



Much more interesting technically was the Aska prototype (above) with a 'ceramic' engine (below left). Not all of it is made from ceramics, but the bits that are — valves, cylinder liners, head liners, piston head, port liners, camshaft facings and turbocharger turbines — adds up to some pretty amazing advances, since they are lighter than equivalent metallic components but with much higher wear and temperature resistance. Indeed Isuzu are working on an adiabatic ceramic engine which will eliminate the cooling system!

After all that, a tie-up with Irmscher to produce be-spoilered and be-spatted versions of standard cars, all mildly tuned as well, seems very low key, while the drop-head Piazza looked neat (right).



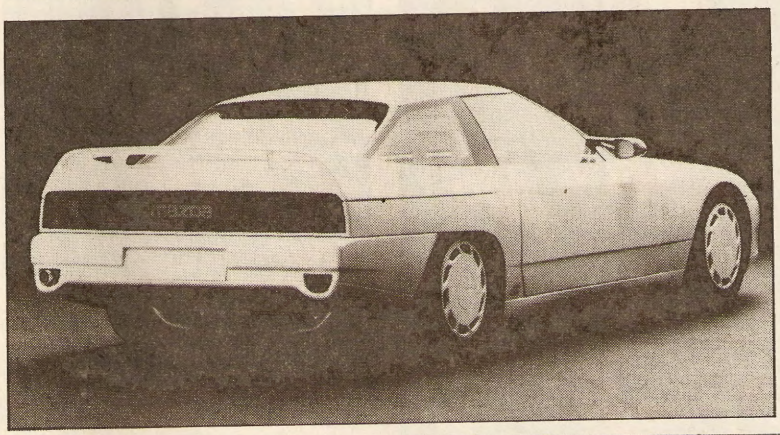


Mazda's dream car, the MX-03 (below), has been seen before at Frankfurt, but it is still one of the more impressive. Powered by a three-rotor turbocharged Wankel giving some 320bhp in this application, it features 4WD and four-wheel steering, plus a particularly sleek shape with a Cd of 0.25, helped by the ubiquitous rear bridge spoiler.

Also on show, of course, was the all-new RX-7 (see p33), one of the few really genuine production newcomers at Tokyo, while a surprise exhibit (above) was the IMSA GTO version.

Fitted with a turbocharged 13B two-rotor Wankel giving 310bhp in race tune, it is rumoured that it will be fitted with the three-rotor unit at some time in the future. The same engine also features strongly in Mazda's plans for next year in their Group C1/IMSA GTP car, initially unblown to take advantage of the lighter weight limit, in which form it produces 500bhp, but turbocharging is well on the cards. The car will be designed by Nigel Stroud and built by Mazdaspeed in Japan. The other interesting snippet of news was that Mazda's rallying efforts revolve around the 4WD blown Familia (see p34), and should be Gp A homologated by Jan 1.

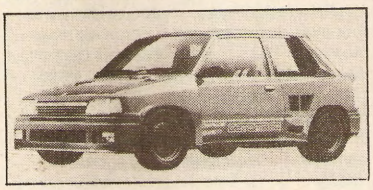
Coming down to earth, the other significant new offering was a neat cabriolet version of the 1500cc Familia (323 to you and me) due to go on sale in Japan in the spring.



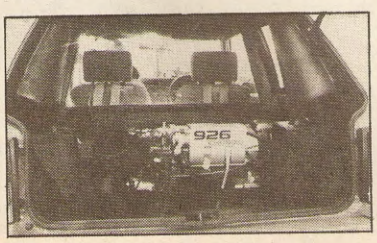
Subaru's dream car (bottom) went by the rather uninspiring name of F-9X, but it's no more or less inspiring than most of the others. It is said to have outstanding aerodynamic properties, being designed using Fuji Heavy Industry's (Subaru's parent company) aircraft manufacturing technology. Features include a cowlflap-type front spoiler for efficient cooling yet minimal resistance, and winglets on the rear spoiler. No drag figure quoted, though. The engine is a twin ohc, four valves per cylinder, 2-litre flat four with both turbocharger and intercooler.

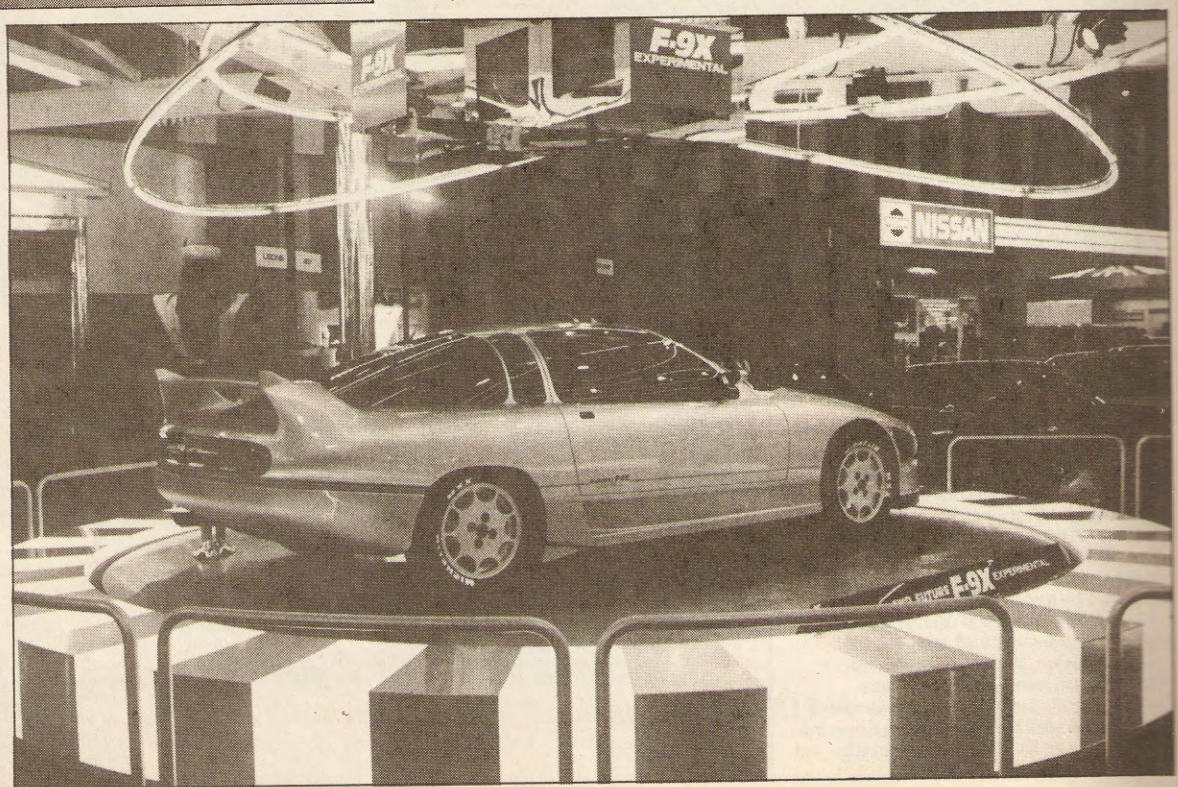
Rather more practical and feasible was the ACX-II, based on the Alcyone (or XT, as we know it here). This has a new flat six 2.7-litre engine, effectively two more cylinders on their flat four, which gives 150bhp at 5600rpm. There's also full-time 4WD with locking centre diff, electro-pneumatic suspension which increases or decreases ground clearance depending on surface, ABS, electronically controlled steering, electronically controlled aerodynamics, a keyless entry system, a multi-display set-up with a colour LCD control panel and a tyre pressure sensor.

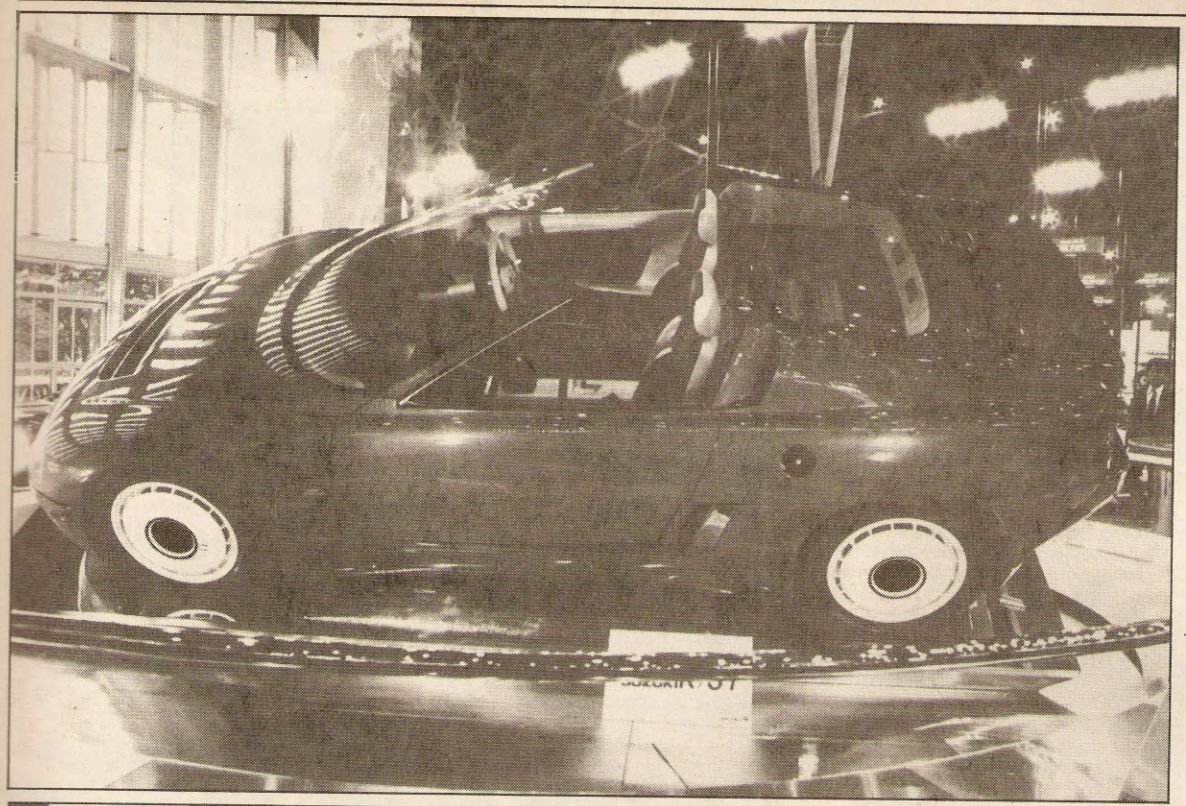
A more prosiac newcomer was the 3-door coupe hatchback version of the Leone (above), while also on show was Subaru's version of the DAF continuously variable transmission which uses — surprise, surprise — electronics to control it. Their contribution to competition was three rally cars — two Leones, one which took part in the Safari, the other in the Hong Kong-Beijing event, while the third was an Alcyone from the Australian Wynn's Safari (top).



Daihatsu's dream cars can quickly be forgotten: one was a mobile tent called the Trek, the other one of silly electric commuter cars. Much, *much* more entertaining was the amazing Charade De Tomaso 926R, a super-Mini sort of thing. Sitting in the back seat is a diminutive, 926cc, twin-cam, four valve per cylinder, turbocharged power plant (below) pushing out 120bhp, which should give this tiny tearaway a very lively performance indeed. Also quite cheeky was the Mira Cabriolet, based on the Turbo TR-XX version of the Mira (any connection between the Japanese company and the research establishment near Nuneaton?).

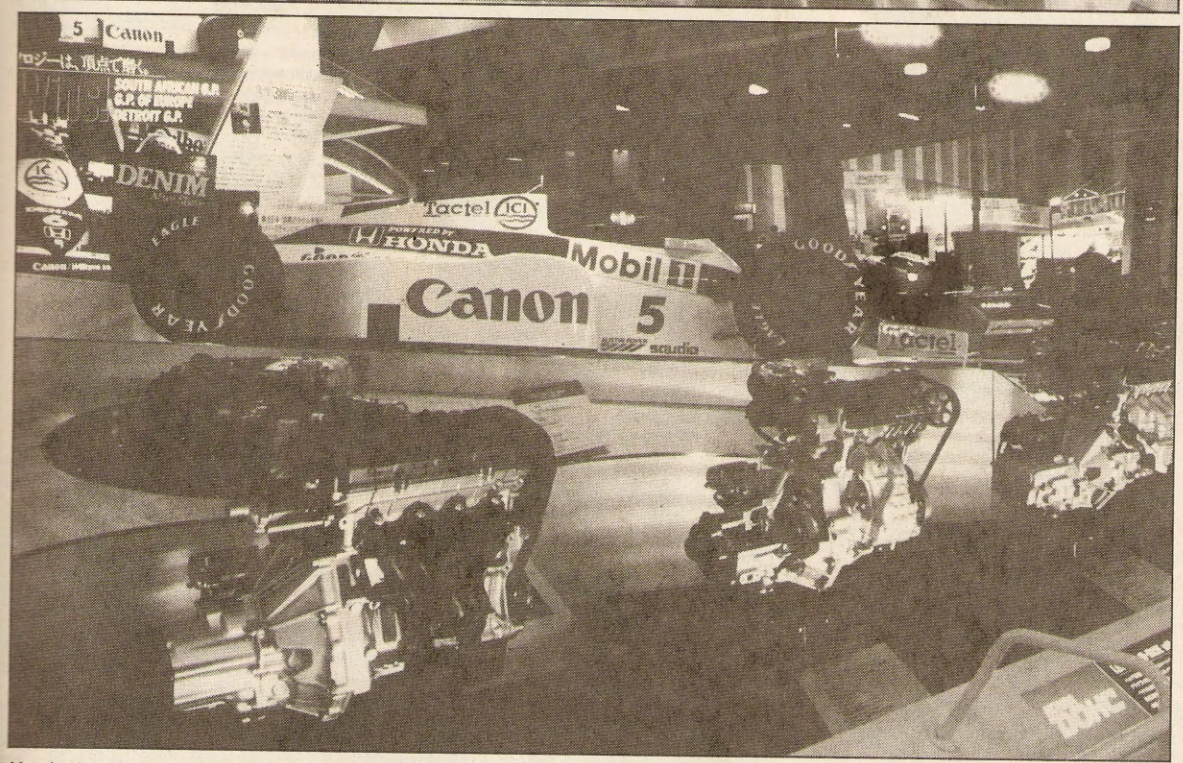






Suzuki's stand held two of the most captivating little sports cars seen in a month of Sundays — if the Japanese ever decide to re-invent the tiny sportster *à la* Austin 7 Ulster, MG Midget, Austin-Healey 'frog-eye' Sprite or Honda S800, these would be it. The R/S1 (left and above) featured a mid-mounted, twin-cam, 16-valve, fuel injected 1.3-litre four set across the car behind the seats. The shape is very sleek, but we didn't much care for the flattish rear window whose leading edge is in just the right position to scalp a tall driver in a tail-end shunt.

The other little delight — and probably rather nearer production — was the R/P2 (below). With a front-mounted twin-cam 12-valve, fuel injected 800cc three cylinder power plant, it also features part-time 4WD and is *tiny* — overall length is only 11ft 3ins.



Ford's was the most intriguing of the 'foreign' stands at Tokyo. Part of the reason was the latest in their Probe series, the V (below), with a mid-mounted turbocharged four cylinder engine and the quite staggering Cd of 0.137 . . . That's better than an F-15 fighter!

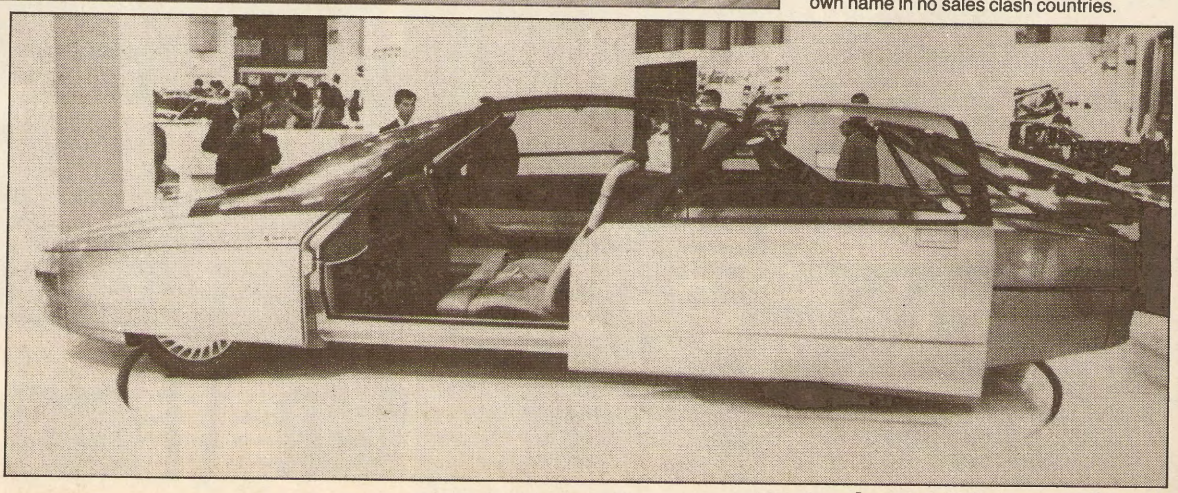
Of more practical use, and of interest to our eyes, are some of the Fords we never see here. The Laser, for example (actually a Mazda 323) and the Telstar (Mazda 626). They even had the Laser full-time 4WD, a twin-overhead cam, turbocharged 1.6-litre hatchback with 4WD — if the spec sounds familiar, it's because it's the Familia (sorry . . .) Full-time 4WD by another name. Two intriguing models from North America were the Taurus and Sable, while the Festiva is a Fiesta-sized super-mini, designed and built by Mazda. They will market it under their own name in no sales clash countries.

Honda *didn't* have a concept car on their stand, but upstaged everybody else with the Williams-Honda F1 car as raced by Mr Rosberg and Mr Mansell (above). Some concept car . . .

On the other hand, the new Legend, which will be a Rover by any other name, attracted considerable interest. With its 2.5-litre, all-alloy, twin-cam, 24 valve V6 engine and very sleek lines it's every inch the executive express — much more so, and much more European, than the typical Japanese offering in this class.

Should be a winner . . .

Also new was the neat Quintet Inegra, while Honda showed their entry into the mini-car market, the Today. One British Honda dealer, over for the show, was bemoaning the fact that the Today probably wouldn't come to the UK — "It'd be one in the eye for the Lancia Y10," he was heard to mutter . . .



By MIKE McCARTHY

Mazda's RX-7 at Riverside where our man was allowed to evaluate the new car's refinements. Below: Dynamic Tracking Suspension System.

The Wankel lives on

You would think that, when a manufacturer has a brand new car, he might give it a new name. But Mazda replaced the RX-7 with . . . the RX-7. Keeping a name has been done many times before, but in this instance the reasons were strong: 470,000 of them. That's how many of the old RX-7 Mazda sold, and of those 360,000 went to America. What makes this thumping success so much more laudable is that the original car was introduced in 1978, when the word Wankel was more a hindrance than a help: the great white hope of the motoring world had emulated Halley's comet, coming and going in a blaze of publicity. NSU's problems with the engine nearly brought the company to the edge of extinction, and didn't help Mazda at all in the mid-seventies — at one point they sent a huge proportion of their workforce knocking on doors to sell cars.

The RX-7 is still in a minority of one in using a Wankel power plant (apart from the home-market-only Cosmo saloon), and the fact that it survived is due to the strength of character, and engineering genius, of one man: Kenichi Yamamoto. He had total faith in the rotary engine, and must now be regarded as the greatest expert on the subject. He long ago solved the reliability and economy problems that plagued it, and, in the RX-7, it fulfilled its promise. We may not see it being taken up by other manufacturers again—once bitten, twice shy—but with the success of the RX-7 it is no longer a mere technical curiosity.

The Wankel in the new RX-7 is a different beast to that which was first seen in the NSUs. Code named the 13B, it has actually been seen in the old model for some time, replacing the 12A. Major dimensions are the same as those of the 12A except for rotor and housing width which have increased, the Wankel equivalent of a bigger bore. The single chamber capacity is now 654cc as compared to the 12A's 573cc. But there's more to it than bigger capacity. There's 6 Port Induction (6PI) for a start, three ports per rotor. The torque curve of a rotary engine depends on intake port timing — with an advanced port-close timing, economy is good and bottom-end torque strong but you lose out at the top end. Conversely, retarded port-close timing sacrifices bottom-end torque and efficiency for good top-end results. With 6PI you have a primary port, a secondary port and an auxiliary port, giving staggered input timing and three (in effect) torque curves which can be matched into one good, continuous, curve.

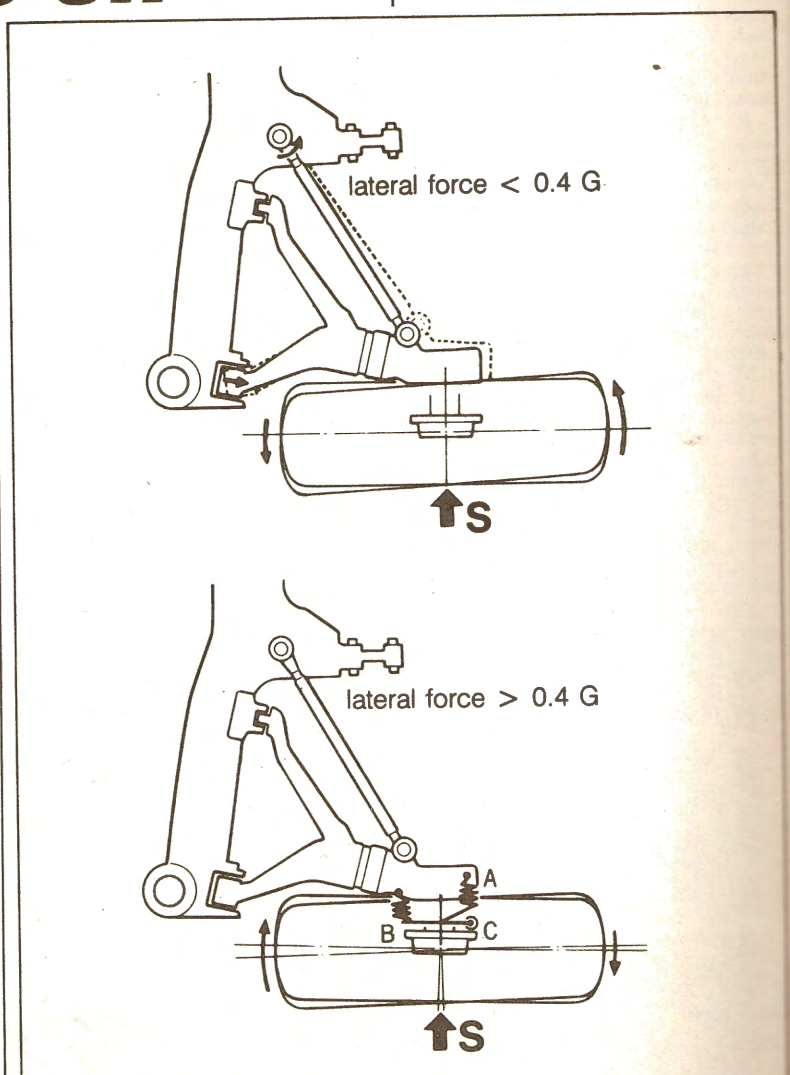
Then there is what Mazda call the Dynamic Effect Intake system, wherein the high-speed air pulsation phenomenon unique to a rotary is used to ram air from one rotor to the other, giving, as Mazda say, 'the characteristics of a natural air supercharger'.

Naturally there is electronic control of both the fuel injection (using two injectors per rotor) and ignition, all controlled by an 8-bit, 8K byte microprocessor for optimum operation under all conditions. Other features include a multi-chamber exhaust port insert which breaks up the sharpness of the discharge 'pop' as the exhaust port opens, for quieter running, Teflon-coated, chrome-molybdenum plating of the housing, and thinner, three-piece apex seals that both increase the sealing and reduce the sliding resistance.

In naturally aspirated form, and without exhaust emission controls, the 13B engine gives 150bhp at 6500rpm, and 135lb ft of torque at 3000rpm. In emission form this drops to 146bhp. For home consumption only at the moment, there's a turbocharged version giving 180bhp at 6000rpm, and 182lb ft of torque at 3500rpm, but since this is designed specifically to run on lead-free fuel, we won't see it in the UK in the foreseeable future, more's the pity.

But the RX-7's engine isn't its only novelty: there's also what Mazda call their Dynamic Tracking Suspension System, wherein the rear wheels become an active component of the steering system: four-wheel automatic steering, if you like. This works on the principle that, in a straight line, you want neutral rear wheel alignment, but that, as you begin to corner, or corner at low speed, toe-out is desirable to increase agility—but then, as cornering forces rise, so toe-in becomes more desirable to give a controlled amount of understeer and thus stability. As Mazda say, 'the ideal action is an active shift to toe-in when and only when extra stability is needed — during hard acceleration, braking and cornering'. (Before you get carried away imagining the rear wheels waggling you might like to know that the angles concerned are less that 0.1deg in either direction!)

The way Mazda achieve this is very, very complicated. The rear suspension is basically semi-trailing arm, but there any resemblance to anybody else's rear suspension ends. In a conventional system the A-arm is connected directly to the wheel hub: in the Mazda system it is connected by what is called a Triaxial ▶



An in-house design or Porsche 944/Chevrolet Camaro derivative? Judge for yourself. Note, however, the neat headlight design.

►►

Floating Hub. This interposes two rubber bushes (with a controlled degree of flexibility) and a fixed ball joint between arm and wheel, all of which acts rather like a slightly flexible king-pin.

Under gentle cornering loads, the outer A-arm bush deflects, allowing the whole unit to swivel around the inner A-arm bush, and thus give toe-out: this occurs between 0.2 to 0.4g lateral loading. Above about 0.4g, though, the loads on the Triaxial Floating Hub are such that the wheel pivots around the fixed joint in the hub, compressing the rubber bushes, and the wheel's angle moves to toe-in.

It's all very clever, but there's yet another tweak to the system: camber control. In addition to the standard A-arm, there's another link between body and hub which acts, effectively, rather like an upper wishbone or arm and thus cuts down on the amount of camber change, but without the bulk of a double wishbone system. Again, the angles aren't much — without the camber control arm you'd get about 2deg of change, with it this comes down to 1.5deg. But enough is enough . . .

In addition, there's Auto Adjusting Suspension, whereby damper settings are adjusted electronically and automatically, the driver having the option of 'Normal' or 'Sport' selection. Sensors monitor speed, acceleration and braking, and steering wheel angle, and from that a microprocess calculates lateral g acceleration and sends appropriate signals to actuators at the dampers. Steering wheel angle and car speed are also used to give electronically- controlled power steering. We will not see either AAS or power steering here, though.

Naturally the body is all-new, and the RX-7 is now a 2+2, thanks to a slightly longer wheelbase though the overall length has actually come down. Track front and rear has been increased too, and the whole car is somewhat heavier as well. Looks? The Mazda designers looked a little pained when it was suggested that there was more than a hint of Porsche 944 about the front end, and Chevrolet Camaro about the rear, but insisted that it was all their own work, and that they had no intention of copying anyone else. The fact is that, from its smooth resilient urethane front bumper, via its flush-fitting doors and glass, to its huge back window, there's no denying its sveltness, as the Cd of 0.32 suggests — and, with the aid of an optional aerodynamic package which includes a front and rear spoiler and trim bits around the wheel arches, this drops to 0.30. One neat touch is that the headlights, when lowered, are fronted by a glass panel so that, if flashing is required, it can be carried out without raising them.

Driving impressions

We recently had the chance to drive various examples of the new RX-7 at Mazda's own Myoshi proving ground (on a straight-line drag strip and on a super wiggly cross-country course which they call their 'Global Circuit' since it sets out to emulate roads from all over the world), at the Riverside circuit in California, and on open roads too.

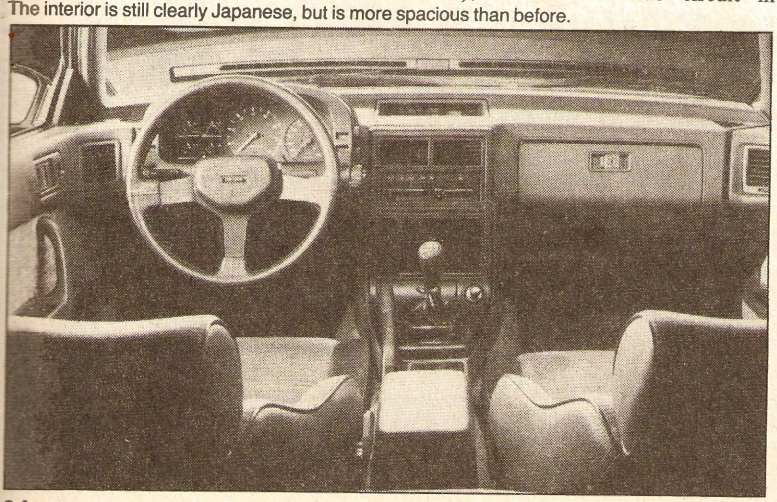
The drag strip proved that, if nothing else, the warning buzzer that comes in between 6700 and the 7000rpm red line is fairly essential — the 13B engine is so delightfully smooth and clean you could easily over-rev it. All the claims about the Wankel's extraordinary refinement are quite true with this version. It also showed that the RX-7 is very, if not dramatically, quick — Mazda claim a maximum speed of 210kph (130mph) and a 0-100kph time around 8.0s. The seating position is excellent, and all the controls work smoothly and positively. The 180deg turn at either end of the strip simply showed that, at low speed under power, strong understeer was the order of the day.

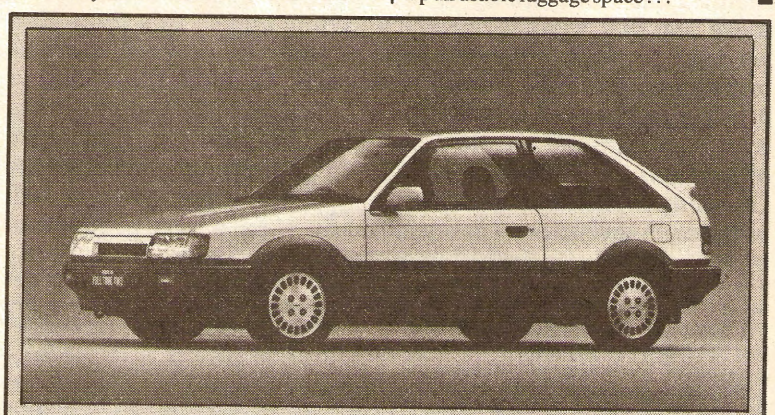
The wiggly Myoshi Global Circuit, however, didn't put the car into a very good light. There were examples of the Australian spec cars with AAS, and a couple of European spec cars as well. The Australian spec cars demonstrated a rather nasty habit of switching from strong understeer to instant oversteer if you dared lift off half-way through a corner: the European spec car was better in this respect. The American spec cars at Riverside (like the European cars, without AAS) were somewhat more predictable as well, though in none of the cars could you provoke power-on oversteer — understeer, sometimes strong, was the order of the day.

However, there are a number of cars that don't shine on a track but are excellent on the road (Mercedes-Benz spring to mind), and the RX-7 is one of them. Although Mazda say there is only a small loss of power with emission control equipment fitted, the Californian cars felt quite gutless — foot flat in third on even fairly mild upgrades was the order of the day. Set against this is exceptional refinement, the engine a distant and highly pleasing hum from in front of you, and wind noise more noticeable by its absence than its presence (at a highly illegal and rather nerve-wracking 70mph, anyway!), but tyre thump intruded loudly at times. The ride for a sports car is another strong feature — resilient enough to absorb pot-holes and such like, yet taut enough to give plenty of feel of the road.

On the whole, the new RX-7 impresses. It's not the nimble, neat, taut little package of its predecessor, but then it's smoother, more spacious, quieter and much more refined. Perhaps the only major flaw (suspension apart, and we'll reserve judgement on that until we've driven a UK spec car for some time on the road) is that the space-saver spare won't be fitted (at time of writing) to UK cars. A pity really — the standard spare takes up all usable luggage space . . . ■

The interior is still clearly Japanese, but is more spacious than before.





Mazda's rally surprise

Wheeled out for our delectation while we were at Myoshi was Mazda's latest rally weapon, a four-wheel drive version of the Familia (323 here in the UK). We were even allowed to drive it, albeit around one lap of a tortuous slalom course set up on a skid pan.

It follows the standard 323 in that the engine is mounted in the normal position, transversely at the front, while suspension too is close to standard in being by MacPherson struts at the front and struts again at the rear but located by what Mazda call a Twin Trapezoidal Link system — basically this is a wide lower wishbone plus a trailing arm.

Where it breaks dramatically from standard — if not as dramatically as the 6R4 does from the Metro — is in the engine and drive train. The power unit is a derivative of the single overhead cam unit found in the 323, but plonked on top are twin belt-driven camshafts operating four valves per cylinder, while air is fed into the engine courtesy of a turbocharger and an intercooler. Complete with fuel injection, this little monster gives 140bhp (JIS net) at 6000rpm from 1597cc — obviously with more to come in competition tune.

The other feature of the car is, not surprisingly, four-wheel drive. The centre diff in this instance, though, is not the ubiquitous viscous coupling but a planetary device that gives a 50/50 torque split.

The quick spin around the slalom course showed up chronic and very strong understeer, the only advantages of four-wheel drive being that, if you lifted off, the poise of the car wasn't upset — it simply turned in more sharply.

Mazda will have Group A homologation by January 1, and we should see a Familia 4WD in the Monte Carlo Rally. . .

MARTIN DONNELLY - REYNARD 84S

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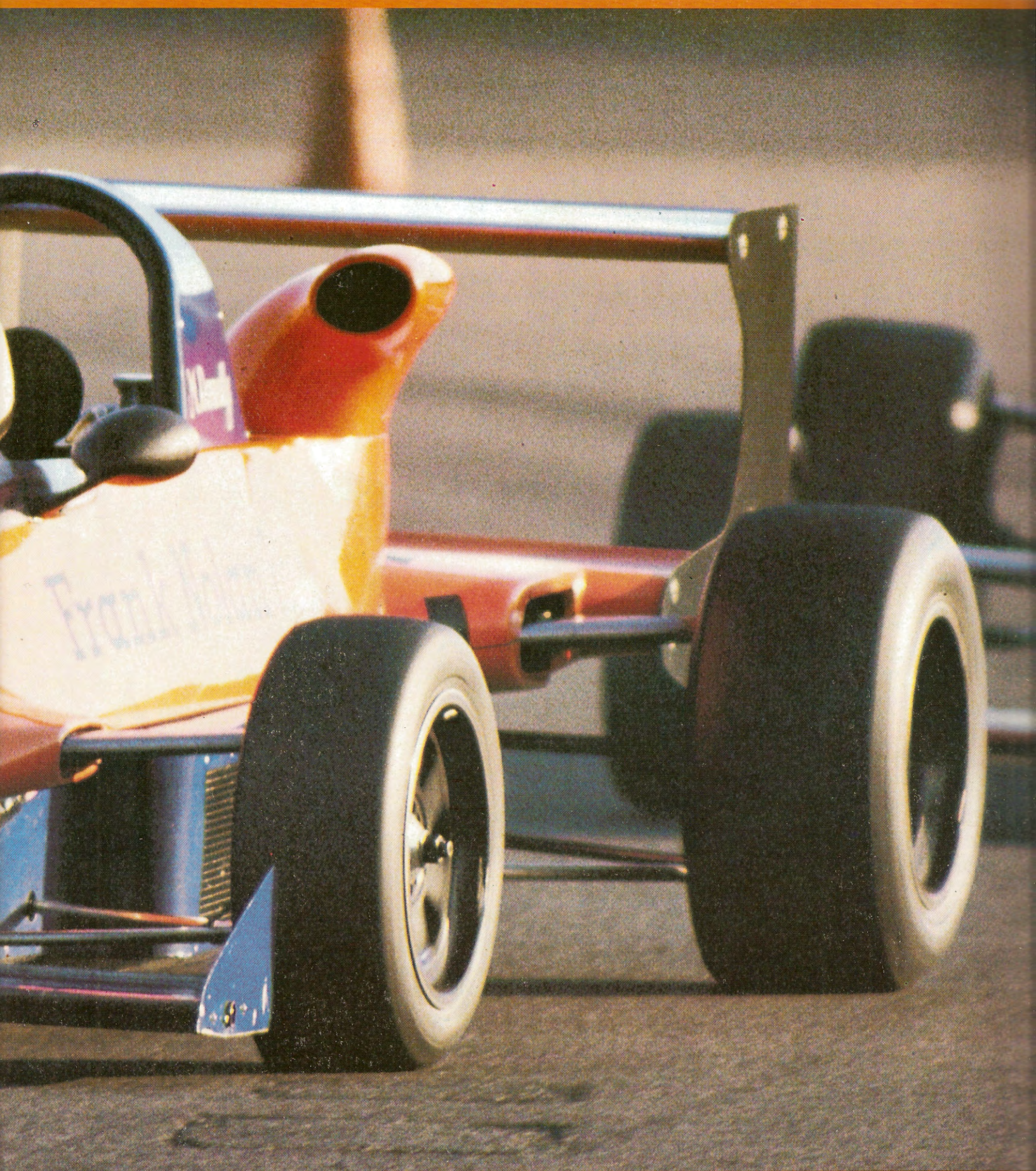

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AUTOSPORT

By MAURICE HAMILTON

Setting new standards

"G'day. Welcome to Adelaide."

We were shocked. Not only did he actually say "G'day", but this security man was throwing open the wrought iron gates at the Victoria Park racecourse and bidding us a cheerful welcome to the Press Centre. At some circuits, the correct credential merely merits a grudging admission. At others the right pass is meaningless if the official empowered with the veto is feeling a little liverish on that particular day. Never mind, members of the press corps have become accustomed to that — which is why we did a double-take when the official showed a hint of civility. It was to be a good omen.

The press centre, erected at the spot behind the main grandstand where the bookies normally carry out their business, was too good to be true. There was actually sufficient room to sit down and work. That may sound a simple criterion but you would be surprised at the number of circuits where journalists resort to siting on the staircase to the loo rather than risk another punch-up as too many pressmen fight for too few seats.

And, before you say it, the press building in Adelaide did not win praise because it was a haven of luxury and lavish hospitality. In fact, apart from orange juice supplied by Beatrice, there was nothing to slake a thirst generated by temperatures in the high seventies. There was, however, an adequate number of TV monitors and a telephone dialling and billing system so simple that it made the operator-controlled arrangements found at European circuits look the archaic and ulcer-generating shambles that they undoubtedly are.

Then, there were courteous and helpful personnel — like the man from the telex office who chased me halfway across the horserace course to query a minor detail on my story. "S'cuse me mate," he said, "sorry to bother you . . ."

Sorry to bother *me*! I should have been the one to apologise. Of course, the telex operators must have been pumped high on national pride as they transmitted the lavish words of praise spilling from the pens of the disappointingly small number of international media people present.

Rarely has the blasé Formula 1 world been so generous in its acclaim. Part of the pleasure emanated from a contradiction of the thought that the circus would travel 12,000 miles to witness the agonising birth of another street circuit as inexperienced organisers fell desperately short of the required standards.

The mechanics received the first hint that this would be the Race of the Year. Accustomed to the open pits in Montreal, Detroit, Monaco and Dallas, with the accompanying forced march to the paddock, they were stunned by what they found at Adelaide.

The pit buildings, temporary in name only, put the breeze-block billets at Silverstone to shame. There was room to manoeuvre, washing and cleaning facilities, adequate lighting, telephones, and a never-ending flow of worried officials, anxious to know if this would be adequate.

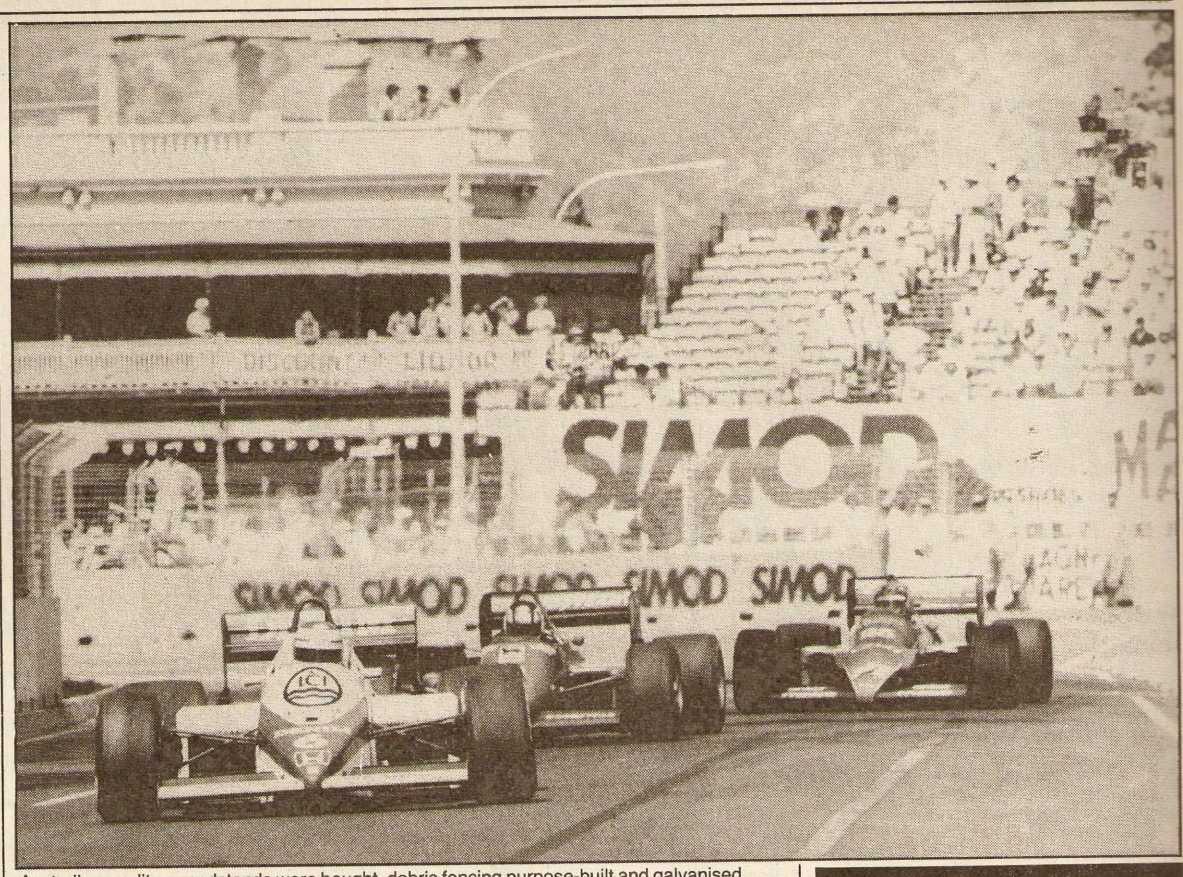
"Adequate!" spluttered one seasoned mechanic. "They've obviously not seen Monaco . . . thank God. When we go to places like that, we're told that's the best they can do, working in temporary surroundings and all that. They tell us we've got to make allowances. But this shows what *can* be done.

"I mean," he continued, once he had made sure I was writing this down, "we've actually been provided with decent toilets. It's amazing the number of circuit organisers who seem to believe mechanics are some sort of superhuman race who can function for 12 hours without going to the loo . . ."

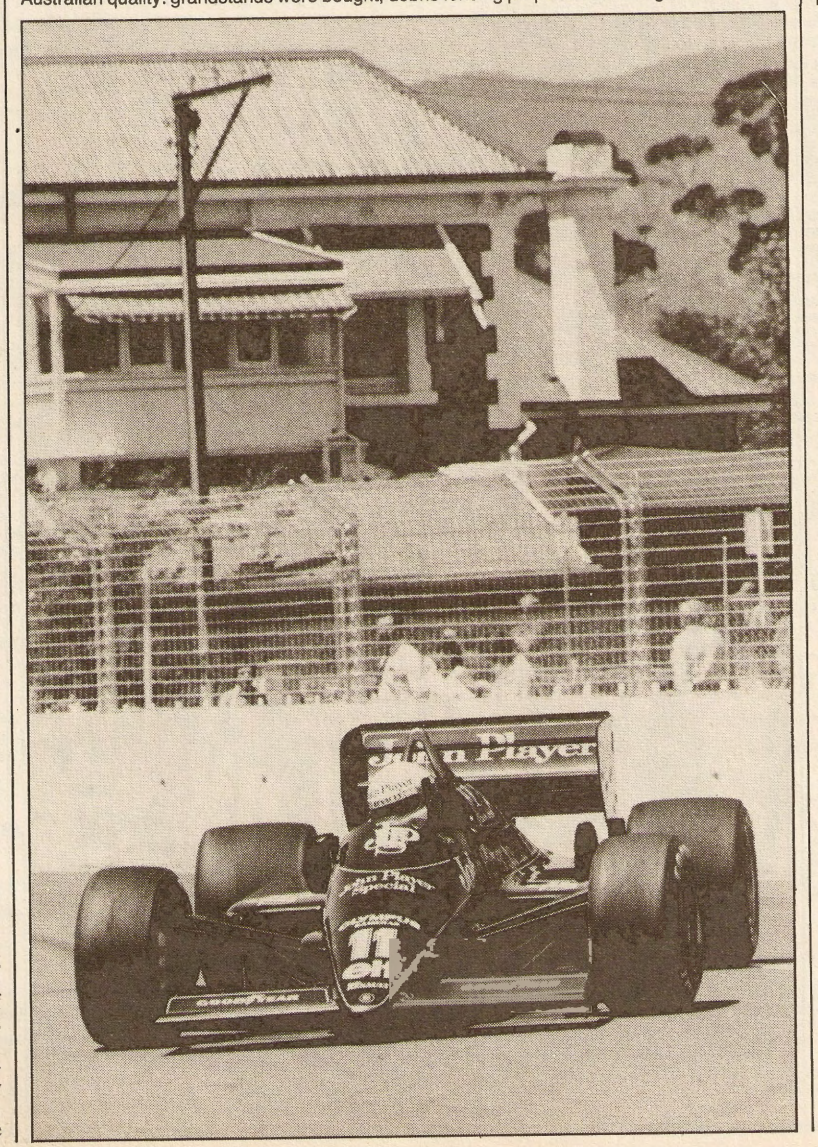
The same lessons applied to the circuit itself. The kerbs and walls had been laid out carefully, so much so that Derek Ongaro had very little chasing to do. And, of course, any recommendations were carried out immediately. The debris fencing was purpose-made with a simple but effective design which allowed it to be slotted into place with ease. Openings were made for the photographers and the entire structure had been galvanised, as had the pit buildings.

This, as any circuit owner will tell you, costs money and, judging by the quality of materials used in Adelaide, there was no shortage of Australian dollars. The South Australian government had paid out £4m to establish the event with a further injection of £2.5m to be repeated each year. Rather than hire the grandstands, they bought them. They see the race as an investment and, as such, were prepared to allow a deficit of £750,000 this year.

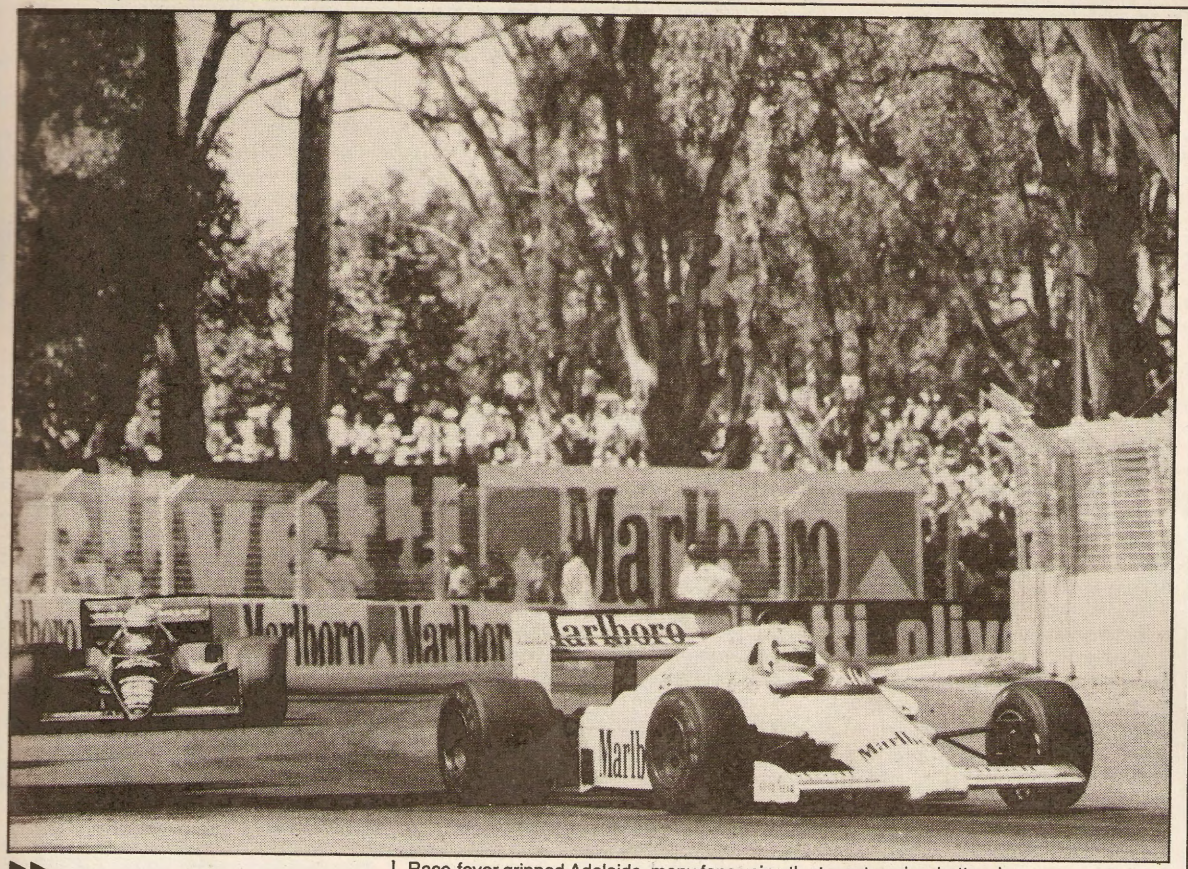
The organisers would not quote an exact figure on Sunday night but the loss did not exceed that amount. In any ▶



Australian quality: grandstands were bought, debris fencing purpose-built and galvanised.



"The mechanics received the first hint that this would be the Race of the Year . . ."



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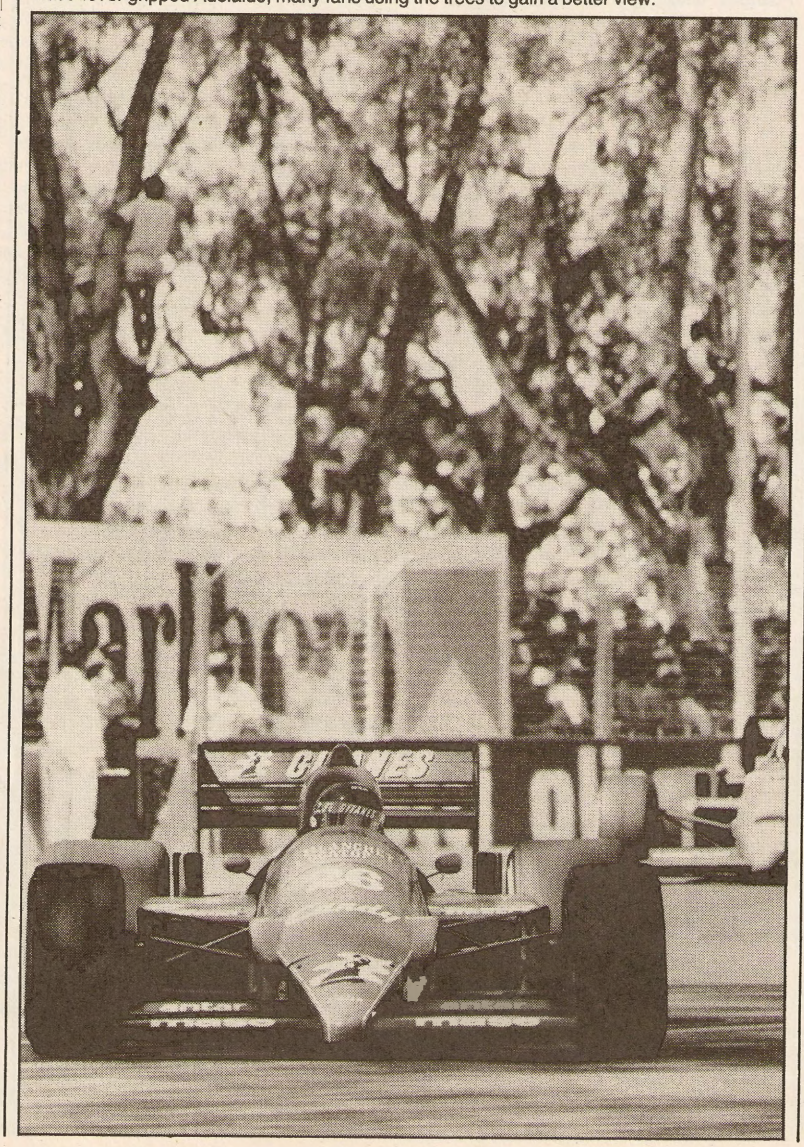
Race-fever gripped Adelaide, many fans using the trees to gain a better view.



case, the shortfall was more than off-set by the economic boom enjoyed by the city of Adelaide. Hotel rooms were at a premium and restaurants packed each night. On Saturday evening, boutiques had cleared their stocks of Koala sweatshirts and Grand Prix gear and, by then, the entire city had been gripped by the Grand Prix fever. Mention the fact that you had travelled from England for the race and you had a passport to a welcome which often went beyond a warm handshake and a cup of tea — at least, if the tearful scenes at the airport on Monday morning were anything to go by . . .

The people of Adelaide were anxious to make the race succeed yet their urgency to do the job right was tempered with a good humour which made the whole affair extremely relaxed. The pit lane had an end-of-term feel about it and, as the sun beat down, it was easy to understand why the Tasman series had been so popular in the sixties and seventies. Antipodean faces from the past appeared in the pit lane; acquaintances were renewed and, as Alan Henry of *Motoring News* pointed out at one stage, the drivers who finished first second and third in the 1963 Mediterranean Grand Prix were within a stone's throw of each other. (Answers on a post card please.) Indeed, the ageing process was accelerated when you realised that one or two of the current Grand Prix drivers were babes in arms when that trio stood on the rostrum at Enna.

Today's drivers, of course, expected another Dallas or Detroit. But they were so impressed that the feeling of well-being extended to an unprecedented turnout at the driver briefing in the press room. The interview room was a healthy stretch from the pits — or a short car ride if you were a Grand Prix star — but, to give them credit, the drivers turned up on time. Pierluigi Martini even walked across when his lift failed to materialise . . .

The local press were hungry for information. Questions ranged from furtive enquiries about the apparel worn under racing drivers' overalls to the more overt and increasingly confident canvassing of drivers' views about the circuit.

In the face of such unexpected praise, the Australians were sceptical. There was the unspoken belief that the Formula 1 people were being kind and tactful. Ha! They obviously were not present when Rosberg let rip in Detroit. If anything, the Formula 1 teams are over-critical, all of which gave the comments expressed even greater credibility — with the warning that there is no room for complacency.

There were criticisms. The exit to the pit lane caused a nasty accident during practice and the tight first corner with its gravel run-off was not widely approved. There were the inevitable bumps and the feeling persisted that, had the track surface offered more grip, then the increase in cornering speeds would have raised the potential hazards onto a more serious level; Murray Walker might have roared "Off! Off!" more often.

Murray, of course, enjoyed a status akin to a superstar. On Sunday 107,500 people passed through the gates. Some were disgruntled at the inadequate viewing afforded by their basic admission tickets (£12.50) but the majority seemed to know all about M Walker.

The Australians take each Grand Prix live through a link with the BBC and if you think Walker is a bit much for 40 minutes on a Sunday night, imagine how the Aussies must feel after 90 minutes

"As the sun beat down, it was easy to understand why the Tasman series had been so popular . . ."

worth of enthusiasm at 2 am on a Monday morning.

They love it, so much so that the good Murray has a fan club and they duly presented him with a tee-shirt. On the front, a portrait of the balding gabbler; on the back, the legend "Unless I'm very much mistaken . . . yes, I am very much mistaken . . ."

Murray accepted it in the manner in which it was intended and, in between signing autographs, he found time to talk about Australia's first World Championship Grand Prix.

"I can't find the words to express my admiration for the job they have done here," he said, waving a hand in the general direction of the packed grandstands. Murray Walker, stuck for words, spoke volumes for Adelaide.

So, too, did the fact that practice started on time each day. Anyone familiar with the wasted hours in Dallas and Detroit will fully appreciate the magnitude of the effort put in by the Australians. Of course, the newspapers on Monday morning were full of it. 'KEKE IS KING, BUT ADELAIDE YOU ARE THE NUMBER ONE!' yelled the headline in *The Advertiser*. Below that, a quote from Rosberg: 'On behalf of the drivers, Adelaide has done the best job in the world. It's as simple as that'.

True, that was a fair summary. But, Adelaide, please do not become smug, like the well-established and stuffy venues elsewhere. There is room for improvement. I mean, the chap at the gate could have touched his cap . . . ■

By MARTIN HOLMES

Off-road racing is undoubtedly hazardous. Michael McFadden endures a spectacular moment on his way to seventh in class on the Frontier 500 with his 1600cc Raceco two-seater.

The off-road racing challenge

"I think that rallying and off-road racing can teach each other a lot," exclaimed Ivan 'Iron man' Stewart, Toyota's number one American off-road racer, and the driver of the sport's most sophisticated vehicle. His open class truck sports a spaceframe chassis; the engine is developed from Formula 3 and rallying four-cylinder blocks (normally aspirated, to comply with current rules), and the rear suspension features shock absorbers which work in tension, not compression. Competition manager Cal Wells is on the way to further things, his preparation company having already built a prototype Chevrolet truck that boasts 20ins suspension movement.

In the past two years, the technical side of off-road racing has taken off, and with this new awareness has come the support of many major companies.

Everyone can win something in off-road racing! The entries are divided into a large number of classes, catering for the three distinctly different types of vehicle: spaceframe buggies, trucks, and 'Baja Buggies' (or converted VW Beetles). Only the truck classes attract support from the manufacturers and it is the fight for supremacy in the increasingly important 'mini-truck' market that sparked off these new activities. Absence of import quotas on commercial vehicles has particularly brought the importers into the sport. Currently active are Ford, Chrysler (through Dodge), Renault (through Jeep), Toyota, Nissan — and for 1986 there will be General Motors, Mazda and Mitsubishi. All save Jeep are involved in the mini-truck (2.5-litre) category, though Toyota were moved from the truck class to the overall category after taking the letter or the rules further than the spirit. An overall winner has to share his honours with considerable numbers of other competitors, and many of whom are supported by manufacturers whose advertising campaigns will make you think they won the event outright.

Mini-trucks are not the only reason for off-road's new ascendancy. Much of the current upturn is also due to a long-awaited accord between the two biggest off-road promoters, SCORE and the High Desert Racing Association, which for 1985 joined forces to unify vehicle rules and run one overall desert racing championship. But off-road is not just a matter of racing in the deserts. Half of the sport is concerned with stadium ('short course') racing, where crowds are lured by exaggerated promotion, and titles can be gained in a quick and easy way.

Off-road in all its forms is still essentially an American sport, though gradually an international element is emerging. Immediately after the Frontier 500 race, America's most successful off-roader, Rod Hall, went to contest a similar event in Australia, but few foreigners are active in America. The doyen of off-road competition is Bill Stroppe, legendary expert from the Pan-Americana days and respected in foreign eyes for his responsibility of the Safari Rally Ramchargers. He confides he has never been so excited about the status quo. "These SCORE and High Desert people have finally gotten together. They must stay together for all our sakes."

Stadium racing may pack in the crowds but desert racing is the pure sport. The Frontier 500 organisers proclaimed their event was the longest and roughest off-road race in America though there is little other point-to-point motorsport to compare with it, as most are held on multiple-lap routes. The Mexican Baja 1000 race, the event which started the sport back in 1976, is longer, but it is usually held in a circuitous configuration these days. Off-road racing is run non-stop from flag to flag without allowance for service stops or neutralised time sections for passing inhabited areas.

Routes are varied. Perhaps the best supported event is the Mint 400, run like the Frontier 500 out of Las Vegas but sponsored by a rival hotel and held round four laps of a 100 mile route. Walt Lott, HDRA President, conceived the Frontier 500 as a race from Las Vegas to Reno using tracks which cross the highway between these Nevada cities. This year sponsorship uncertainties prevented him from running the event through to the Reno area, so, it turned about in mid-Nevada and finished at Beatty, back towards Las Vegas.

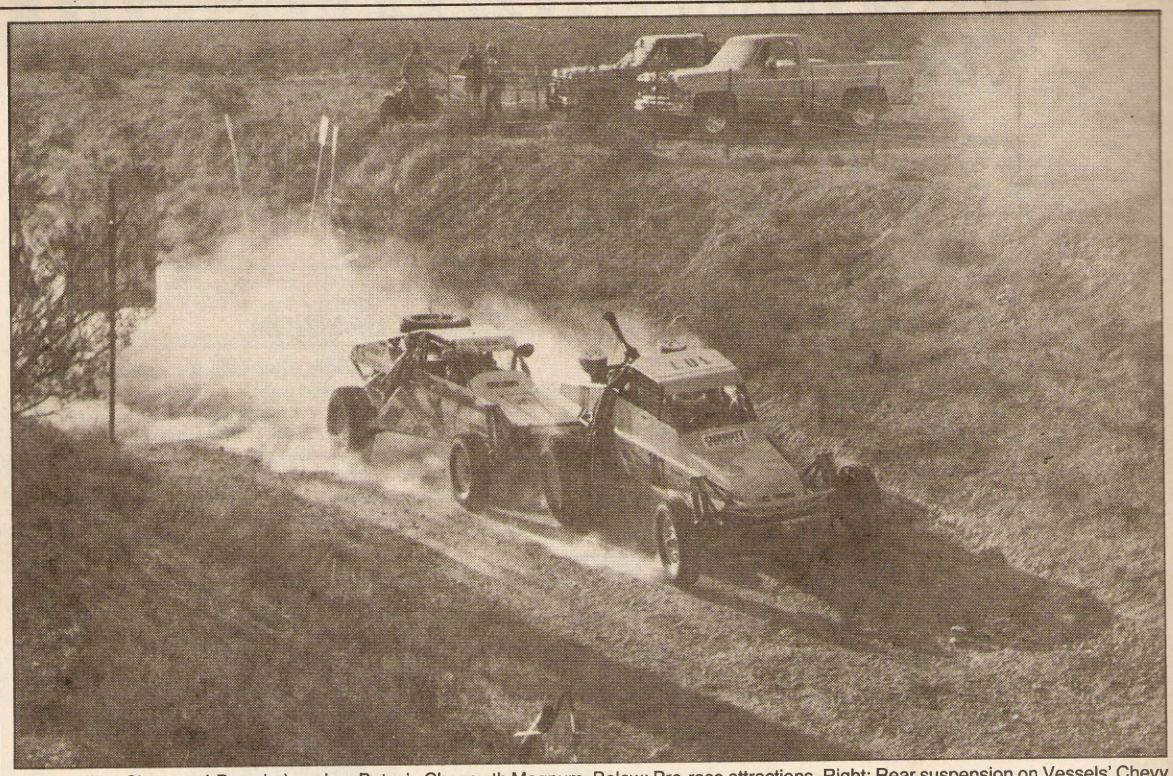
Nevada has taken over from Mexico as the home of off-road racing. "The sport is accepted by the state authorities as it brings activity to the outlaying communities," explained Rod Hall, himself a Reno resident. K J Howe, promoter of the Mint 400, added: "We have more help in running events than in neighbouring California or Arizona, where pressure groups work hard to stop the deserts

being used by others." For Howe, the multi-lap format creates road damage problems, but these are resolved with the Bureau of Land Management, America's national land agents. "They require us to regrade the soft roads, though hard-based tracks are not damaged." Mexico is a difficult country in which to organise an event. The top-to-tip format of the Baja 1000, which used to run down the Baja Peninsula from Ensenada to La Paz has become very difficult, though it has been promised to revert in style in 1986.

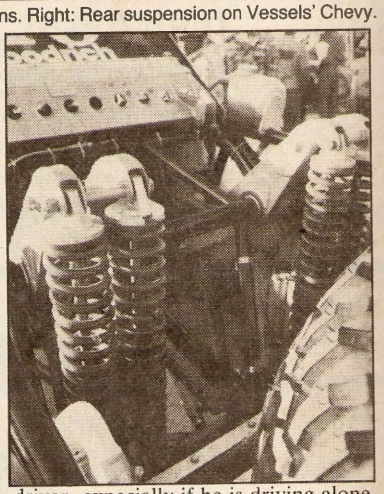
Off-road racing, like the Paris-Dakar Rally-Raid, has acquired an enviable acceptability among every level of motoring enthusiast. Mike Nesmith one of the old 'Monkees' pop group, is one of off-roading's most fervent supporters, as is John Gable, Clark Gable's son. As part of their active promotional support of off-road racing, Nissan brings to events a series of standard trucks for celebrities to race, and the company reports that there is a never-ending string of enquiries. At the Frontier 500, Nissan provided cars for members of the 'Chicago' and the 'Tubes' rock groups, as well as actors like Chuck Norris, Kent McCord and Robert Hays. Off-road racing offers no exposure to fans; only dedicated enthusiasts who want to drive in desert dust storms all day. You do not drive one of the trucks for building an image.

What are the tracks really like? One top driver explained that no two desert races are the same but a typical breakdown was "20% rocks and ditches, 40% fast rally-type tracks, 20% of undefinable mixture — and 20% of silt." Of all the hazards, silt ranks as the worst. This piles of talcum-like powder in which a moment's hesitation can stop a car up to its axles. If all goes well, the dust clogs airfilters, drains away the engine power and often causes so much extra fuel consumption that cars run out of fuel prematurely. At worst it means a very long dig. Off-roaders tell endless stories of being 'high-centred' (stuck with wheels off the ground) on obstacles already buried in the sandy dust. One driver still claims to have been high-centred on a buried buggy! Dust in the air is another peril. Whereas on a point-to-point event this hazard will ease after the first 100 miles or so, on a long-circuit course the problems stay to the finish. In the tracks are many very deep holes, for which even the bravest drivers will slow to a crawl. The routes are defined by arrows which are erected a week or two in advance. Crews are allowed — even encouraged — to 'pre-run' (make a reconnaissance), because this will absolve the organisers of accusations if arrows go missing. With time controls only at the start and finish and up to 20 hours' racing in between, organisers cannot cancel sections as would happen on a rally.

Where is off-road racing going? The increase in professionalism is evident everywhere. BF Goodrich's support manager Frank de Angelo said that until a year or two ago there was only Goodrich, Goodyear, and Firestone in the sport. Now extensive support is also coming from General, Armstrong and Yokohama tyres, with increasing interest from Bridgestone as well. This interest is widening the engineering boundaries and is straining the sport's legislators. Toyotas were expelled from the pick-up classes for building spaceframe vehicles. "We followed what we thought were the rules and we had sacrificed plenty of ideas (like four-wheel drive), which we could have used if we had known before we would have to run in the unlimited class. Furthermore we lost six months re-preparing our trucks," said team manager Cal Wells.



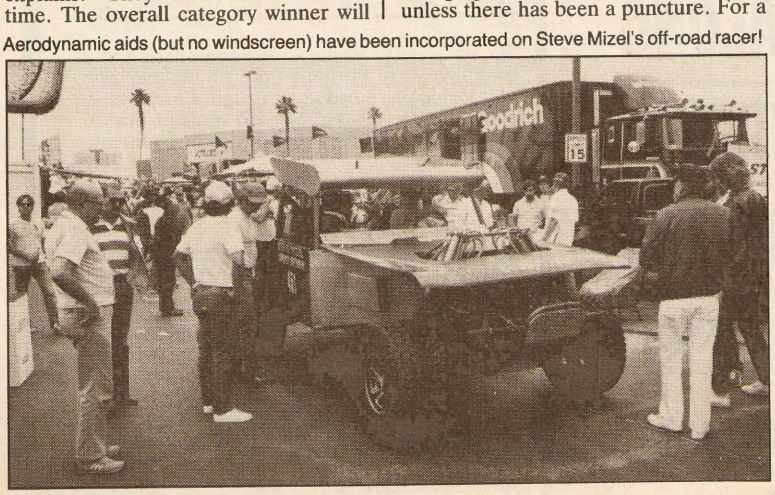
Ragland (3.4 Chapparal-Porsche) pushes Bates's Chenowth Magnum. Below: Pre-race attractions. Right: Rear suspension on Vessels' Chevy.



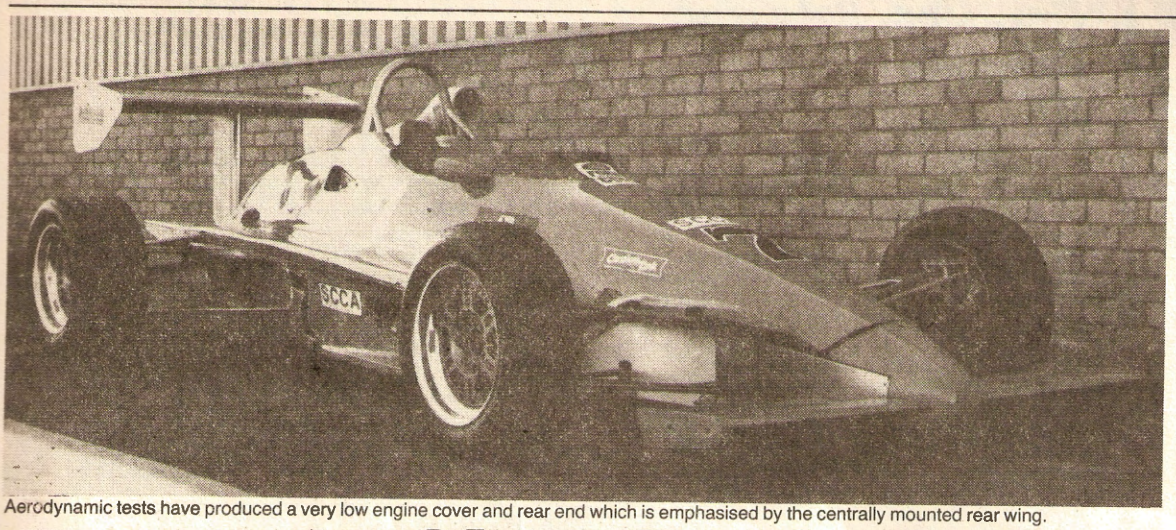
One of the anomalies of off-road racing is the emphasis on rear-wheel drive transmission systems, and very few off-roaders use 4×4. Among those who do is Rod Hall and the jeep driver Don Adams. Four-wheel drive is shunned because it is necessarily heavier, with extra weight at the wrong place — in the front. Power is lost in the transmission as well. Even the overall-winning unlimited class buggies do not use it. Rod Hall explains: "They do not need it at this time. The overall category winner will usually win by fractions of hours, not fractions of seconds." Hall uses 4WD because Dodge want him to do so. His truck is ideally suited to (and prepared by Stroppe for) the 4×4 long-wheelbase production class which it usually wins.

Few things are as exciting as watching the desert pit crews in action. Teams set up their pits at 100 mile intervals, in places where the route comes close to public roads. Adding fuel and cleaning air filters are the automatic tasks, changing wheels is seldom carried out unless there has been a puncture. For a driver, expecially if he is driving alone, changing a wheel himself is not only a long experience, but because of the dust it is dangerous as well. Aerial assistance is banned but crews can radio ahead to warn of their approach to their pits. At the service points, pit crews note the times each car passes, though the closeness between each car at the start (at the Frontier 500, this was eight cars per minute), means that a driver can tell his approximate position simply by being told the order he is running on the road.

Aerodynamic aids (but no windscreen) have been incorporated on Steve Mizel's off-road racer!



Things are forever changing, ideas are flooding in. Walker Evans, one of the most experienced drivers, has recently fitted air conditioning to his truck. Windscreens are optional but most crews do not fit them. Novelties, however, take time to work properly. Before the start of the Frontier 500 Roger Mears (brother of Rick), stated that even after several earlier events, his Nissan still had "new car blues" — and immediately he was delayed by many more problems. Both he and his team mate Mario Alesi were ecstatic about the Nissan mini-trucks. "They go like big trucks, but have small truck handling," said Alesi — just before suffering rear axle trouble. Despite this there is no reserve, no background caution in off-road racing. This is a sport that is fun but one which is progressively playing its part in the development of automotive and military vehicle design. ■



Aerodynamic tests have produced a very low engine cover and rear end which is emphasised by the centrally mounted rear wing.

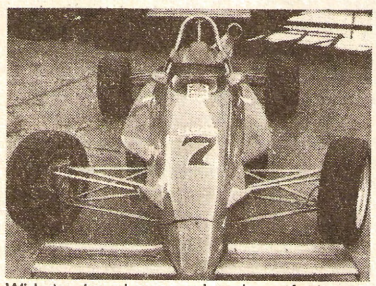
Royale's Citation option

Royale Racing has been offered sole rights to manufacture and market the Citation FF1600 and FF2000 cars outside the USA.

Citation Engineering are based in Indiana, the company formerly run by Ed Zink, famous for a plethora of designs ranging from F Vee to Indy cars. The company has been run of late by Steve Lathrop who wants the cars built and sold on the English market but appreciates that costs and opportunities for production are much more favourable in the UK — thus his approach to Royale's Alan Comock.

Cornock was at Road Atlanta recently to witness the FF2000 Citation qualify second in '86 prototype guise after a mere day's initial testing. Impressed, he brought the car straight over to the UK on the following Wednesday and has the car ready for evaluation.

The Citation has been designed with the emphasis on concentrating the weight towards the centre of the chassis



Wide track and narrow chassis are features.

to produce a low centre of gravity. Wind tunnel testing has resulted in a small, neat design with a low rear end and engine cover which give the car a 'clean' look.

Radiators are side mounted within a fairly long 95in wheelbase. Front track is 60ins with the rear measurement 58ins.

Front and rear suspension are, of course, inboard with double wishbones and push rods at the front and rockers with lower links and radius rods at the rear. Bilstein dampers are utilised. Interestingly, the car has undergone computer evaluation on Yokohama tyres and the FF1600 car on British spec' Dunlops, enabling cars to be supplied to suit these tyres.

Cornock is impressed by the quality of construction, the car being strong and well engineered. The roll bars and braces are Chrome-Moly 4130 steel (like the Swift) with the latter beginning at the lower frame rails to provide increased torsional rigidity. All suspension components are heli-arc welded and the mounting points are removable where practical for ease of repair.

Cornock expressed regret that the car was not in the UK soon enough to contest the BBC *Grandstand* series (various Anglicising modifications are in need of completion), but is "talking to a number of teams and drivers with a view to running the car next year". With more and more variation, the 2-litre chassis scene is looking most interesting for '86.

Reid quick in revised FF2000 Tiga

Making a reappearance in the third round of the BBC *Grandstand* FF2000 series at Brands Hatch last weekend was the Tiga SF85.

The car was campaigned early season by John Robinson, of course, and always impressed in wet conditions. Recently, however, the team has concentrated on development and have been helped by F3 pilot, Anthony Reid, upon the conclusion of the Scot's F3 season with the Reynard-Saab.

The Christal Racing team who run the works supported car apparently approached several drivers who, for various reasons, declined the drive before Reid undertook further testing for the team. Various items were relocated within the chassis, and the suspension geometry underwent major revision before Reid tried the car at Snetterton. After further work, Reid went to Brands Hatch for some testing but the session was spoiled by an 'off' on some oil. A further session at Brands proved promising and Reid agreed to race the car last weekend.

F3 pilot Reid was impressed by the Tiga.

On a cold day, Reid qualified the car ninth with a 45.9s lap before bringing it home a fine fifth with a best lap just 0.2secs slower than race winner, Dave Coyne. "There is no doubting Anthony's speed, but it was nice to be down to the fine tuning stages" the team told us on Monday at the same time as expressing their intention to run Reid again in the fourth round this coming weekend (Nov 17). At the moment, though, the team have a vacant seat on Dec 1 as Reid will be occupied at the Macau F3 Grand Prix.

Foulston loses

John Foulston has lost his appeal against his exclusion from the Brands Hatch Thundersports race on Jul 28.

An RACMSA appeal court ruled that retrospective rule changes to the Thundersports regulations, dated Sep '85, were not valid on Jul 28 as this did not comply with article 66 of the International Sporting Code.

Foulston's exclusion was thus confirmed and his appeal fee forfeit, the computer magnate also ordered to make a contribution to the £100 costs.

New Touraco contest

Team Touraco will run a competition to find the most promising driver for sponsored further training at Cadwell Park on Dec 6.

Drivers must be true novices with Team Touraco having the right to refuse any entry, and the itinerary will include a full briefing followed by a circuit assessment in a VW Golf GTI. A test in a Formula Ford Van Diemen follows before competitors undergo a written test. The winning driver will be trained by Team Touraco at various circuits throughout 1986, with support from Duckhams, before being entered in two races at the end of the year. The only expense to the winner will be his/her own travel to the circuits.

All drivers will receive a full report on their performance and the entry fee is a most reasonable £29.50. Entry forms from: Team Touraco Ltd, Unit 2 Warwick Rd, Fairfield Industrial Estate, Louth, Lincs.

Van Diemen '86 impressive

Setting incredibly rapid times with the prototype 1986 Van Diemen FF1600 chassis recently, has been Brazilian, Paulo Carcasci.

Although we are reaching the time of year when new cars are always reported reaching near sonic boom levels, a number of independent watches stopped Carcasci at 49.69s around the Brands Hatch Indy circuit during testing last week, a 49.0s lap being considered disappointing!

Van Diemen's Ralph Firman confirmed the time and told us that the car was running with chassis modifications, totally revised front and rear suspension and cut away '85 spec' bodywork. Following the Brands test, Carcasci back-to-back tested the car with his '85 version at Snetterton, recording a 1m10.1s with the old car as against a 1m09.8s with the prototype! Full details of the new car can be expected later this month.

Willmott and Jones test Talon

The prototype Talon FF2000 chassis was tested at Brands Hatch last week by FF1600 hotshoes Tim A Jones and TT Junior champion Adrian Willmott, both of whom are looking to full programmes in the senior Ford category next year. Jones, who appears set to extend his association with the Lep Group, showed well in the Lewes-built chassis, although Willmott's run was halted prematurely by an engine failure beyond his control.

Advanced Racing Concepts, constructors of the Talon (the FF1600 version of which Tim Jones, and his namesake Karl, have also driven recently) are now hoping to put a quick driver in the FF2000 for the two remaining rounds of the BBC *Grandstand* championship, although it seems that obstacles have been placed in the way of two or three of their initial conductor choices. . .

Novelty for Fiesta series

The 1986 Ford Credit Fiesta series will see two 100 miler events, complete with driver changes, at Oulton Park (Jun 14) and Brands Hatch (Aug 25).

In addition to this, the popular overseas trips — to Zolder in April and Zandvoort in September — are near certain, with proposed visits to Scotland and Ireland.

Vehicle regulations will remain stable, but one innovation will be the possible inclusion of a couple of reverse grids with the fastest in practice starting from the back. "Obviously I won't break the news until after practice" said series co-ordinator, Stuart McCrudden, "and another consideration is to make the winning car carry 200kgs of ballast at the next event. That should change the results a mite."

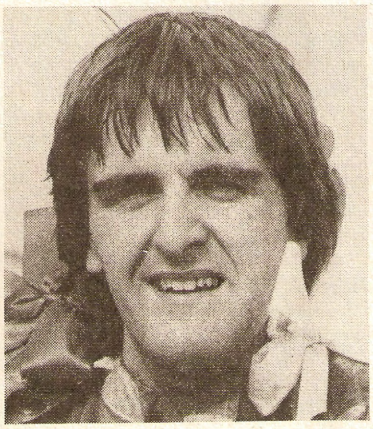
To foster dealer interest, it is expected that the Ford News Dealer Trophy, awarded to the dealer supporting the highest placed car will come with a £500 bonus. Full details soon from Stuart McCrudden Associates, 3 Plains Rd, Little Totham, Maldon, Essex CM9 8NA.

Donnelly demonstrates Swift potential at Brands Hatch

With the problems over the Swift's roll hoop eventually sorted to everyone's satisfaction, Martin Donnelly drove the car in the third round of the BBC *Grandstand* Trophy at Brands Hatch last Sunday and brought it home a fine third.

Having said that the car could beat the Reynards, Donnelly was fastest in mid-week testing, having suggested some changes. "Basically he went down about 15lbs on the springs and we fitted larger front fins" commented Bradley on Monday, "although we still have one or two things to try this week, including a different roll bar."

One of the biggest problems has merely been getting Donnelly comfortable in the cockpit. The pedals are only adjustable at the bottom and the car is still very new to the Irishman. The team have also experienced difficulty in obtaining enough front brake bias, the Swift supplied with the same sized master cylinders front and rear. "Over here, we are used to running much more front bias and so we've been playing about with the adjuster and ended up locking the rear brakes last Sunday" added Bradley.



Donnelly — a close third.

Nevertheless, Donnelly turned in a most promising performance, qualifying the car in 45.5s (0.4sec outside his own lap record) and bringing it home third, with a quickest lap just 0.1sec shy of fastest lap.

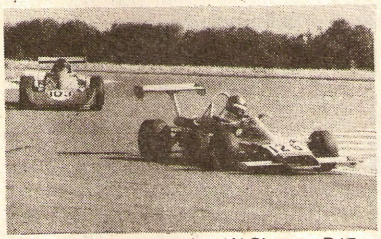
With regard to producing the car, Bradley has put his plans into motion. Titan Motorsport of Huntingdon (who prepared David Leslie's championship-winning engine in '79) are doing the casting work, while C W Developments (Reading) are dealing with the body-work. As far as chassis fabrication is concerned, Bradley has two choices (both carrying out sample work) and details should soon be finalised.

With initial problems over, Bradley is keen that any quick, reliable driver who wishes to try the car should contact him.

Monoposto developments

The Monoposto Racing Club held its annual end of season social event on Sunday, followed by discussions on the Club's formulae (Monoposto 'A' and Kent, Historic F3 and Formula Junior).

The traditional Monoposto series itself, sub-divided to cater for fully modified 1600cc pushrod engines and Ford FF1600 'Kent' units, will take on a slightly different look in 1986, with the admission of FF2000 cars built before December 31 1980.

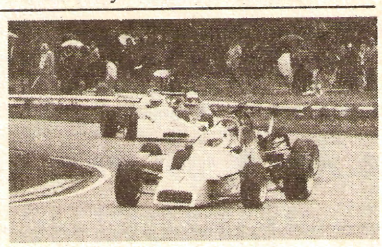


Brian Turner's Monoposto 'A' Chevron B47.

The existing engines in this class are proving increasingly costly to build and maintain, so the decision was taken mid-season to allow a more cost-effective alternative.

About 20 members, several of whom have already acquired suitable FF2000 chassis, have expressed their intention to compete in what should prove a major Monoposto 'A' class revival.

This year's series, while not very well supported in the modified section, provided a close finish, with former F4 multi-champion Brian Turner emerging victorious in his 1979 Chevron B47 F3 chassis. The TUK-supported Mono 'Kent' on the other hand, has provided some huge grids, but Simon Davey (also the undisputed Champion of Snetterton in FF1600) was able to retain his title with his Van Diemen-based device.



Simon Davey's Van Diemen-based Kinell

Next season should be one of consolidation where it is most needed, with the dual-purpose Pre-'81 FF2000s (also eligible for the BARC's Sabre Fabrications national series) adding inexpensive spice up the sharp end of the grids. Full championship details, from Suzy Livingstone, 2 Juniper Road, Langley Green, West Sussex RH11 7NL.

Chong campaigns Mercedes 190E

Brighton production saloon preparation specialists Project 2 Motorsports are teaming up with communications experts G&B International Ltd to field at least one Mercedes-Benz 190E 2.3-16 in next year's Uniroyal and Monroe national Prodsaloon championships.

Ronnie Chong will drive the G&B-sponsored machine, and is seeking a team-mate with the backing to run an identical machine. Having sprinted and raced a number of Alfa Romeos for several seasons, Ronnie switched to a Capri 2.8i this year, encouraging motor sport enthusiast Phil Grimwood's more direct involvement.

"We watched the progress of Martin Caroll and Roger Eccles in their Mercs with interest this season, and feel that the 190E will make most impact on the scene in 1986," explains Chong.

The project is an ambitious one, but reflects the high-technology image and busines commitment of its principal sponsor. G&B International's highly successful communications arm supplies and services all types of telephone based equipment, from very basic answering machines to complete office systems. Specialities of the Peckham-based concern include cellular radiophones.

A case of Yes Minister

Minister Racing Engines have had mixed fortunes recetly. Johnny Herbert's Festival win broke the recent Minister dominance of the event, while the company scored a 1-2-3 in the third round of the Portuguese championship at Estoril last weekend. To keep his end up, engine boss Graham Fuller was the lucky recipient of a 31st birtday Kissogram.

Quest look for expansion

The sphere of influence for Quest Racing Cars should widen considerably in the new year, with the establishment of a dealer network for Mike Thompson's Maidstone-based marque. Festival winner Johnny Herbert and his works FF1600 successor Gary Ayles will be taking cars to Florida for the winter races, while Mike Rowe Racing (01-755 4596) has been appointed as the official Quest agent for Scandinavia and Steve Watt is taking his 85/86FF to Australia with a job transfer in the off season.

Rowe, who has been heavily involved in Swedish F3 for several years (in addition to running Ralts in British and European F3 events), is also planning to field a two-car Quest FF1600 equipe in this country next season, as well as a three-car F3 programme.

BRIEFLY

■ The BRSCC will run a 12 race Formule *Libre* series in '86 to the same lines as this year's championship. Negotiations with potential sponsors are underway and full details will be announced shortly.

■ Operating in its 29th year in 1986, the Jim Russell Racing Drivers School will be opening at Donington as of next February. Apparently pupils from 24 different countries attended the school in '85 and the addition of Donington will mean that Jim Russell club members will be able to race at Snetterton, Oulton Park and now the sweeping Derbyshire venue.

■ Following his awful accident at Brands Hatch last Sunday, reigning Mini Miglia champion, Mike Fry, still had not regained consciousness in Brook Hospital, Woolwich as we went to press.

■ Rapid Spaniard, Luis Villabla, impressed Howard Drake with a one-off outing in the Laser HD85 at Brands Hatch last weekend. This coming weekend, however, Lucy Rogers will be out in the car while father, Tony, races her old Van Diemen RF82. Rogers senior last raced in 1956 (apparently he has a trophy to prove it). He will be hard pressed against his daughter, though.

■ Entered in a Jagauar XJS Cabriolet for this Thursday's (Nov 14) Beaujolais Challenge, are Alex Mellon and Malcolm Clube. Alex heads a sponsors division of Cato Johnson — the world's largest sales and marketing company — and the team hope to raise a substantial sum of money for the Ormond Street Hospital for sick children. Malcolm is known for his exploits on bikes and in various sports racing and Thundersports cars. The Jaguar is provided by Budget Rent-a-Car.

■ This weekend's BHRC meeting at Brands Hatch will also include a non-qualification race to allow for the large Champion of Brands FF1600 entry.

■ Bertrand Gachot, Ruairi O'Coileain and Mark Peters all used Scholar engines at the recent Formula Ford Festival, after last minute changes.

■ The Astra Motor Club would like to apologise to Mark Marchant for inadvertently placing him seventh in their Oct 20 FF1600 event. Mark was, in fact, fifth.

■ Anyone fancy something a bit different? Well, the GEC Stychfields Social Club of Stafford plays host this weekend to the British GP for ½2th scale electric racing cars. They weigh around 2lbs, reach up to 50mph and will cover 0-30 quicker than anything on four wheels, so we are told. Action on Nov 16/17, at 10.30.

INTERNATIONAL RACES

Clearly the champion

SUZUKA, Nov 03: Only 17 drivers made the start of the final race of the All-Japan F2 series, a race that normally attracts a fine entry with many Europeans boosting the numbers. This year, with the advent of F3000, a thin field for the JAF Grand Prix was to be expected, but much of the interest in the event was further removed when one man failed to reach the start line. That man was Kazuyoshi Hoshino, whose driveshaft broke on the warm-up lap, leaving Satoru Nakajima alone on the front row, in pole position.

With some of the pressure alleviated, Nakajima made a superb start,and pulled away to such an extent that he was 5secs clear by lap 4, 17secs by the 10th tour, and 48.5secs ahead by the end. An untroubled win, which emphasised his grip on this year's F2 title, although the Heroes Racing entry has seldom had such an easy time of things.

Unfortunately, the racing wasn't much closer throughout the rest of the field. Keiji Matsumoto started in third place on the grid and ran home in second place, with Geoff Lees' similar March-Yamaha behind, the main difference being that Lees' Dunlops were not as effective as Matsumoto's Bridgestones.

One of the star performances came from veteran Euro/Jap Eje Elgh in Speedstar Racings March-Honda. He qualified 10th, lost his clutch on lap 2, yet ran through to fourth place, bypassing Kenneth Acheson near the end as the Ulsterman's gearbox played up. In fact, Acheson was pushed back to eighth by flag fall with a slow puncture, losing places to top BMW Kunimitsu Takahashi, Kenji of the same name and Akira Hagiwara. This loss of places unfortunately meant that Kenneth was pushed back to third in the season's rankings.

Roberto Moreno started fifth on the grid and moved through to second, until he pitted his 84J on lap 13 with a badly vibrating wheel, then choosing to retire.

KUNIHIKO AKAI

SUZUKA (J)

JAF Grand Prix

All-Japan F2 Championship, final round

35 laps — 129.25 miles

1, Satoru Nakajima (March-Honda 85J), 1h09m20.367s, 111.936mph; 2, Keiji Matsumoto (March-Yamaha 85J), 1h10m08.852s; 3, Geoff Lees (March-Yamaha 85J), 1h10m16.175s; 4, Eje Elgh (March-Honda 85J), 1h 10m25.227s; 5, Kunimitsu Takahashi (March-BMW 85J), 1h10m25.855s; 6, Kenji Takahashi (March-BMW 85J), 1h10m35.261s; 7, Agira Hagiwara (March-BMW 85J), 1h10m35.682s; 8, Kenneth Acheson (March-Honda 85J), 1h10m49.946s; 9, Masahiro Hasemi (March-BMW 85J), 1h10m54,992s; 10, Aguri Suzuki (March-BMW 842), 1h10m55.849s.

Final points standings: 1, Nakajima, 115pts; 2, Matsumoto, 67; 3, Acheson, 66; 4, Hoshino, 51; 5, Elgh, 49; 6, Lees, 42; 7, Hagiwara, 40; 8 = Hasemi & Kenji Takahashi, 37; 10, Yoshihiro Tachi (March-BMW 842).

Willy wins

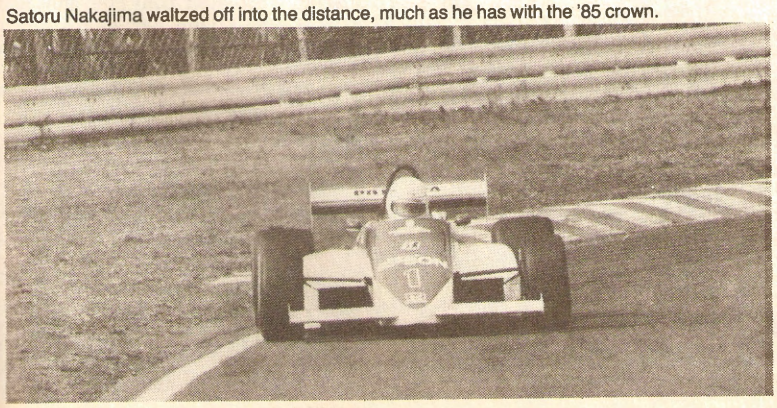
EL ZONDA, Oct 21: Round 8 of the South American F2 Championship was held at the El Zonda circuit in San Juan (capital city of the similarly named Argentinian province). This circuit, it may be remembered, was used in the late Sixties by European drivers such as Tino Brambilla, Andrea de Adamich, Piers Courage, Jochen Rindt, and Alan Rees among others, who came out to compete in the Temporada series.

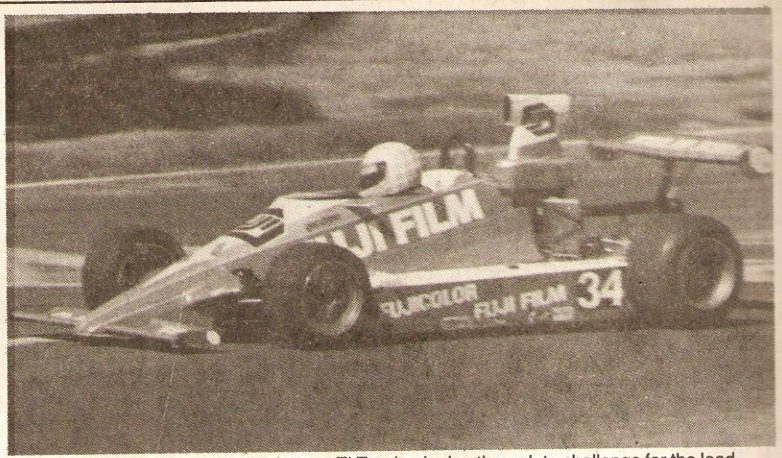
At the green, poleman Guillermo 'Willy' Kissling shot into the lead with fellow front row starter Gustavo Sommi in pursuit, tailed by Guillermo Maldonaldo, Angel Guerra (remember him?), Fernando Croceri and Neto Jochamowitz (of Italian F3 fame and Peruvian extraction), who had been the surprise of practice when qualifying fourth. Behind them came Juan Giacchino, Alberto Scarazzini, Eliseo Salazar (back in ninth, note), and Uruguay's Pedro Passadore, with the rest of the 22 starters in tow. Kissling then started to inch clear, particularly through the new first gear chicane, and Sommi was made to work for his second place, with Maldonaldo getting by on lap 8, albeit regaining the spot when the latter retired two laps later with a siezed engine.

By lap 13 of the 30 lap race, Giacchino was through to third place, and four laps later he bypassed Sommi for second. This worried Kissling as his lead was reduced to 1sec all of a sudden, primarily due to running wide when exiting the downhill esses after the pits. Anyhow, he held on and duly won by 2.35secs, with Sommi just over 1sec behind. Guerra made it an Argentinian top four, having to slow after bending a fin when trying to pass Sommi. Croceri had been in line for fifth, but two laps from the end his gearbox started to disintegrate and he was forced to let Jochamowitz and Passadore by into the last points scoring positions.

ANTONIO WATSON

Satoru Nakajima waltzed off into the distance, much as he has with the '85 crown.





Juan Giacchino was in storming form at El Zonda, ripping through to challenge for the lead.

EL ZONDA (RA)

South American Formula 2 Championship, round 8

1, Guillermo Kissling (Berta-Renault), 39m21.12s, 97.485mph; 2, Juan Giacchino (Berta-Renault), 39m23.47s; 3, Gustavo Sommi (Berta-Renault), 39m24.52s; 4, Angel Guerra (Berta-Renault), 39m25.62s; 5, Neto Jochamowitz (Berta-Renault), 39m40.26s; 6, Pedro Passadore (Berta-Renault), 39m46.93s.

7, Fernando Croceri (Berta-VW), 39m55.53s; 8, Lionel Friedrich (Muffatao-VW), 39m56.64s; 9, Enrique Benamo (Berta-Renault), 40m08.72s; 10, Eliseo Salazar (Berta-VW), 40m41.22s.

Fastest lap: Kissling, 1m17.49s, 99.076mph.

Championship positions: 1, Maldonaldo, 45pts; 2, Sommi, 33; 3, Kissling, 30; 4, Croceri, 17; 5, Guerra, 14.

The Brazilian challenge

CORDOBA, Oct 28: In practice for the ninth round of the South American F2 Championship, the Brazilians regained some of their composure after the previous week's drubbing in San Juan, by scooping first, third and fifth places on the grid, mainly due to the superior performance of their Pirellis (of which they have exclusive use) in the wet.

Cesar Pegoraro sat on pole with series runner-up Gustavo Sommi alongside. Marcos Troncon broke the Berta domination by placing the unusual Heve-VW in third slot, just ahead of championship leader Guillermo Maldonaldo's Berta. Fifth placed Lionel Friedrich also provided variety with a Muffatao.

Sunday dawned bright and sunny, much to the dismay of the Brazilians and they expected to be blown away by those cars on the locally made slicks. And so they were, but only after Troncon had led bravely into the first corner. At the end of that first lap, he was still ahead from Sommi and a fast starting Alberto Scarazzini. Pole man Pegoraro came round in 10th place!

Sommi made it through for the lead on lap 4 and then Troncon gradually fell back to eventual retirement. The race was not to be Sommi's, however, as the Argentine was caught out at the Esses on lap 11, running wide and allowing fellow countryman Scarazzini by, the latter then pulling away. Maldonaldo had been fifth at the end of lap 1, but having passed Troncon on lap 8, started to reel in Croceri. This he duly managed, and made it by for third on lap 21, topping his drive by snatching second place from Sommi on the last lap.

And what of the winner at San Juan's El Zonda circuit? Well, Guillermo Kissling had to start from the back of the grid (as did team mate Neto Jochamowitz). He made it through to sixth place by lap 15, but could progress no further, having to settle behind relative newcomer Victor Romagnoli.

The outcome of all this, is that Maldonaldo still leads the title race, extending his advantage slightly over Sommi, while Scarazinni's win moves him through to fifth.

ANTONIO WATSON

CORDOBA (RA)

South American Formula 2 Championship, round 9

38 laps — 61.75 miles

1, Alberto Scarazzini (Berta-VW), 42m24.45s, 87.37mph; 2, Guillermo Maldonaldo (Berta-VW), 42m27.77s; 3, Gustavo Sommi (Berta-Renault), 42m28.43s; 4, Fernando Croceri (Berta-VW), 42m31.62s; 5, Victor Romagnoil (Berta-Renault), 42m49.37s; 6, Guillermo Kissling (Berta-Renault), 42m50.92s;

7, Nestor Gurini (Berta-Renault), 43m04.59s; 8, Cesar Pegorado (Muffatao-VW), 37 laps; 9, Pedro Muffatao (Muffatao-VW), 36 laps; 10, Norberto Picetti (Berta-Renault), 33 laps.

Fastest lap: Maldonaldo, 1m05.69s, 89.05mph.

Championship positions: 1, Maldonaldo, 51 pts; 2, Sommi, 37; 3, Kissling, 31; 4, Croceri, 20; 5, Scarazzini.

Next round: Guapore (BR).

With a whimper . . .

HOCKENHEIM, Nov 10: The German racing racing season was rounded out with a non-championship race for F3 and FF2000 competitors, the two classes being run concurrently. However, the quality of the entry was poor and '85 ended with a whimper, not a bang.

One man dominated the event, Frenchman Gilles Lempereur, who duly followed up his pole position with victory by almost 1min. Mario Bauer was the next man across the line in his similar, but VW powered, car, with Klaus Koch keeping his aged March ahead of Horst Henrich. When a Chevron B43 is the seventh F3 car home, things aren't good. Emphasising the paltry entry, the fifth car home overall was the FF2000 winner Andy Bovensiepen (who ran well at the Formula Ford Festival), in champion Victor Rosso's car, finishing 7.6secs ahead of Hans-Richard Holzer.

WOLFGANG MONSEHR

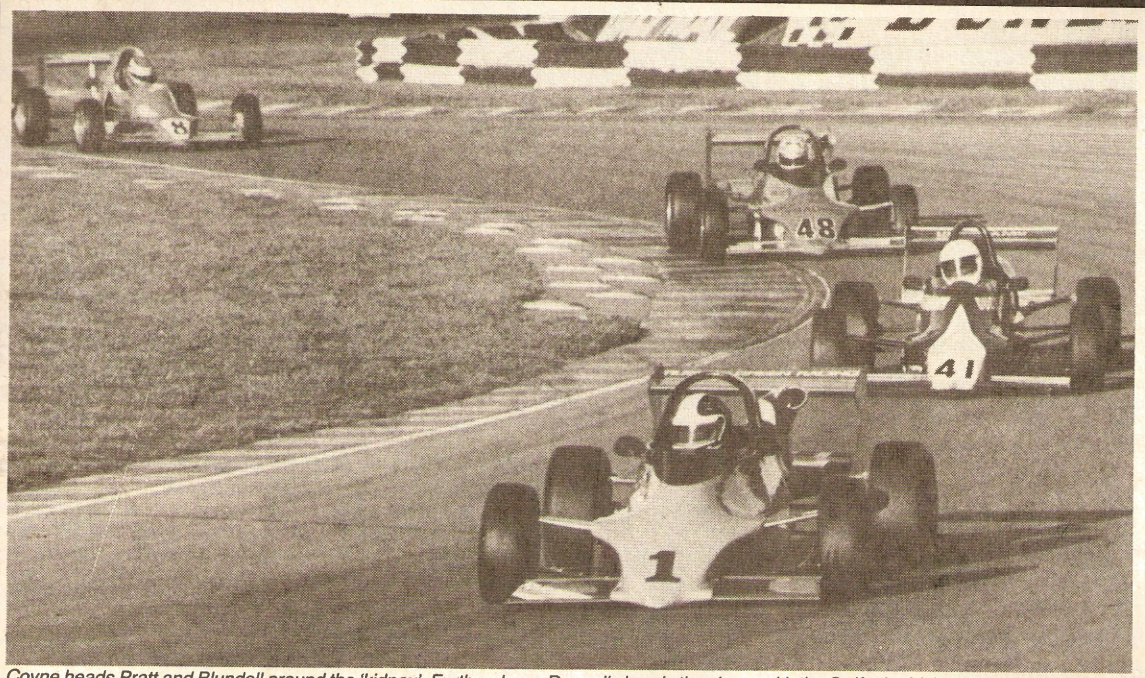
HOCKENHEIM (D)

Non-championship F3/FF2000 race

20 laps — 32.87 miles

1, Gilles Lempereur (Martini-Alfa MK45), 25m27.1s, 77.49mph; 2, Mario Bauer (Martini-VW MK45), 26m26.3s; 3, Klaus Koch (March-Toyota 813), 26m30.2s; 4, Horst Henrich (Ralt-VW RT3), 26m30.6s; 5, Andy Bovensiepen (Reynard-Neil Brown 84SF), 26m36.9s, 74.11mph; 6, Hans-Richard Holzer (Hemmerle WH85), 26m44.5s.

BRANDS HATCH: BBC GRANDSTAND FF2000



Coyne heads Pratt and Blundell around the 'kidney'. Further down, Donnelly heads the chase with the Swift, the Irishman third by the flag.

Sterling Coyne

The third round of the prestigious BBC *Grandstand* series took place under a blue sky but amidst freezing winds. The spectators were treated to superb racing organised by the ever efficient BARC.

Riding on the crest of a wave following his victory in the previous round, Dave Coyne placed his Rushen Green Racing Reynard 84SF at the front of the grid with a practice time of 45.3s. He felt that a 45.1s was on the cards were it not for running low on fuel and suffering from a spluttering engine towards the end of the session.

Beside Coyne on the front row was Mark Blundell, the Royston driver benefiting from midweek testing in the Anglo European Racing Reynard. As his confidence increases through becoming more aware of the capabilities of slicks, a maiden victory in the 2-litre category cannot be far away.

Row 2 comprised the Swift of Belfast's Martin Donnelly and the Van Diemen RF85 of John Pratt, the former looking very competitive in the American chassis, and adding a new dimension to the championship.

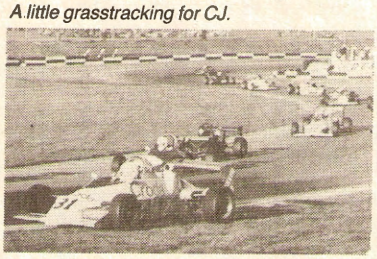
Fifth was Mark Waghorn who drove confidently to put the BWB Motor Services Ray at the right end of the grid. Sixth spot went to a hard trying Ross Hockenhull, two places in front of his team mate Benoit Vigneault, the Richard Dutton Racing duo sandwiching Gary Brabham.

Tony Reid headed the fifth row in Christal Racing's Tiga SF85 setting a 45.9s, one tenth faster than Jonathan Bancroft. At least Bancroft was seen by the time keepers this week. They also saw Paul Jackson making great efforts in his Ray and accredited him with third fastest time, before reconsidering and demoting him to 16th.

At the green, Coyne dived into the lead in customary fashion while Pratt forced his way through to second with Blundell and Donnelly close behind. These four drove a blindingly fast first lap and began to separate themselves from the rest of the pack. Vigneault, who had reached Paddock in second place, before being elbowed back to fifth, and Hockenhull found themselves locked in battle behind the leading foursome together with Reid and Bancroft.

Over the opening laps Donnelly pressurised Blundell heavily but as Mark got into his stride he set about concentrating on Pratt rather than fending off the Swift, and pulled out a small gap. Hockenhull and Vigneault were by now a little too close and touched on the approach to Druids sending the French Canadian into the barrier. Hockenhull continued at unabated speed until the start of lap nine when his left front wheel assembly parted company with the rest of the car, Ross finished up parked beside his furious team mate. AUTOSPORT photographer Michael Brown wasn't all that impressed, either, having been struck by the errant wheel . . .

A little grasstracking for CJ.



Meanwhile, at the front things were hotting up. By lap 5 Blundell was attacking Pratt and trying to protect his third position from Donnelly who had caught the AER Reynard. Into Druids Donnelly tried to go down the inside but Blundell firmly closed the door. With Coyne just two lengths clear it was becoming very interesting indeed. Blundell finally made a move, passing Pratt with apparent ease before Paddock. Seemingly unnerved by this, Pratt was very slow on the exit, allowing Donnelly through as well! Blundell and Donnelly fought hard to catch Coyne, but he was well in control by this stage and quite able to defend his lead. Back in fifth position, Reid was driving as well as ever with Bancroft three lengths behind but unable to close the gap. For these two it was a relatively lonely race, with Gary Dunn a further 6.7secs in arrears, seventh.

For Coyne it was a victory which gives him a comfortable lead in the championship, while for Blundell it meant adding a second place to the third and fourth he has accumulated in the opening rounds. Finally, Donnelly announced that he is back, and that the Swift is right on the pace.

MARK GALLAGHER

BRANDS HATCH

Nov 10

BBC Grandstand FF2000 Championship, Round 3

15 laps — 18.05 miles

Pos	Driver	Car/Engine	Result	Best Lap	Qualifying	Pos
1	Dave Coyne	Reynard-Neil Brown 84SF	11m50.5s	46.1s	45.3s	1
2	Mark Blundell	Reynard-Neil Brown 84SF	11m50.9s	45.9s	45.3s	2
3	Martin Donnelly	Swift-Neil Brown DB3	11m52.1s	46.0s	45.5s	3
4	John Pratt	Van Diemen-Neil Brown RF85	11m52.5s	45.9s	45.5s	4
5	Anthony Reid	Tiga-Richardson SF85	11m55.3s	46.3s	45.9s	9
6	Jonathan Bancroft	Reynard-Neil Brown84SF	12m08.4s	47.0s	46.0s	10
7	Gary Dunn	Reynard-Swindon 84SF	12m15.1s	47.6s	46.6s	13
8	C. J. Smith	Reynard-Neil Brown 84SF	12m21.4s	47.7s	46.5s	12
9	Greg Ferrell	Reynard-Neil Brown 84SF	12m34.4s	47.7s	46.8s	14
10	Willy Godwin	Van Diemen-Swindon RF85	12m35.5s	48.1s	50.4s	24
11	Gerry Amato	Reynard-Neil Brown 84SF	14 laps	49.2s	49.1s	22
12	Stuart Ziemelis	Reynard-Alan Smith 84SF	14 laps	48.9s	46.8s	15
13	Steve Holland	Royale-Minister RP30	14 laps	49.2s	48.4s	20
14	Nicholas Owen	Argo-Neil Brown JM14B	14 laps	49.6s	48.5s	21
15	James Guthrie	Argo-Nelson JM14B	14 laps	50.4s	49.4s	23
R	Ross Hockenhull	Reynard-Neil Brown 84SF	Accident	46.7s	45.6s	6
R	Tony Chambers	Reynard-Neil Brown 84SF	—	48.3s	47.7s	19
R	Rick Shortle	Reynard-Neil Brown 84SF	Accident	48.1s	46.4s	11
R	Gary Brabham	Reynard-Neil Brown 84SF	Engine	48.8s	45.7s	7
R	Benoit Vigneault	Reynard-Neil Brown 84SF	Accident	48.1s	45.8s	8
R	Mark Waghorn	Ray-Neil Brown SF84	Engine	59.4s	45.6s	5
R	Paul Jackson	Ray-Neil Brown SF85	—	60.5s	46.9s	16

Winner's average speed: 91.47mph. **Fastest lap:** Blundell & Pratt, 45.9s, 94.40mph. **Championship positions:** 1, Coyne, 24pts; 2, Blundell & Hockenhull, 13pts; 4, Pratt, 9pts; 5, Donnelly, 5pts; 6, Vigneault, 4pts.

Ringo starred

BRANDS HATCH, Nov 10: The BARC's last meeting of the year, offering six races in cold, dry conditions, was sadly marred by an accident in the final race of the day which left Mini ace Mike Fry in hospital with serious injuries (see *Sports Extra*).

A strong entry for the Champion of Brands FF1600 round necessitated a 26 car qualification race which gave Marlborough's Ringo Hine his first ever victory by an impressive 8 secs. Stuart Kestenbaum took runner-up spot from BRP's Julian Westwood on lap 2 and pulled out an equally useful margin before easing off towards the end, while Derek Pring also overcame Westwood to head home a close scrap for third, with Bob Lambert, Paul Spooner and Richard Mansell all making it to the main race. Someone who didn't make it was Ab Pandaal, the Van Diemen driver providing extra work for his all-female pit crew by losing it *after* crossing the line and taking Paul Andrews' Jomic with him into the Brabham Straight tyre wall.

A clutch-troubled Jon Fletcher made a poor start from pole in the Winter Warmers GT thrash and dropped down to third on the run to the first corner. Rod Birley went round the outside and demoted him another place, but the Sierra cut in sharply forcing Fletcher to lift off. The Lotus then received a hefty punt from David Ellis and went waltzing down the hill, scattering the midfield runners all over the circuit. As the mangled Esprit staggered away leaving four other machines abandoned the black flags were already being hung out. Unfortunately, some drivers refused to acknowledge them and came barrelling out of Clearways to find a grid full of slowing cars, but somehow major contact was avoided, although Tony Davies' newly rebuilt Firenza received a glancing blow from Ellis.

Fletcher made the restart but his clutch didn't want to know and the white car was swamped as the field went into Paddock. As first time round Rob Cox made a great getaway in the Black Bullet Elan to take the lead from Eddie McLurg and Birley. Ellis soon had the mighty Aston wound up again and after passing the Sierra took McLurg and Cox in one incredible manoeuvre along Brabham Straight on lap 16. Soon afterwards McLurg lost time with a spin at Druids, and a later replay dropped him well down the order. He then lost all his front bodywork and a door on the approach to Paddock before the red Lotus eventually fell foul through fuel pump failure. Not a good day . . . Meanwhile the Aston was going superbly in front, although in traffic and at the hairpin Cox was able to catch up. But the Elan was never going to get by and finished some 0.6secs shy of the leader.

Eric Patterson was on pole for the poorly supported non-championship Clubman's event only to deposit his Mallock in the Druid's gravel on the very first lap. Thereafter Tony Pouyanne had a clear run to the flag in his Silver Phantom, with Tim Moores hanging on

Interesting Winter Warmer GT variety — Lee Wallace's TransAm and Neil Denyer's Capri.

With Ellis gone, Cox holds off McLurg, Birley and Davies early in the Winter Warmer GT race.

in second nearly half a minute clear of Mike Sanders. John Younghusband pipped Ed Mercer to fourth in the best battle in this professional affair.

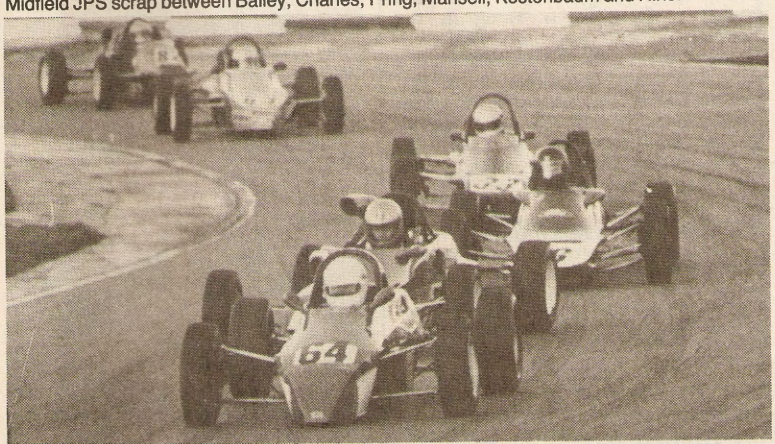
Steve Robertson turned in a 49.5s to just pip new works Quest recruit Gary Ayles to pole for the JPS round, the novice stars sharing the front row with the Ray of the improving Andrew Stapley. At the lights the local man made the best start to head Ayles into Paddock, while Robertson was caught out by the startline slope. In his efforts to get back in front he banged wheels with the Quest, ran wide onto the old circuit and spun. While the rest of the field avoided the stricken Fleetray car the unlucky Greg Hart did not, the works Ray driver subsequently meeting the Post 4A marshals for the second time in eight days. Meanwhile team mate Stapley was doing a good job in leading a race for the first time, until Ayles got through at Surtees third time round in a well-judged move. Andy Mathew's older Ray was holding down an excellent third, but most of the action centred on the quartet dicing for fourth. Miki Dee's protegé Luis Villalba was having a run in Howard Drake's Festival-starring Laser, and the Spaniard was going well and leading Rowan Dewhurst and Chris Hall. A big sort-out at Druids near the end let Dewhurst through, although Hall lost out to Bob Berridge as he tried to follow the BRP man past the Laser. Meanwhile Ayles had opened out a 1.5 secs gap to Stapley to score his second win for Quest cars, with Mathew hanging on in third and well clear of the next group. Further back Bob Hawkins kept his hold on second place in the title battle by heading home Ted Whitbourn and Len Bull.

The non championship and combined Mini Se7en/Miglia race was stopped after two laps following an accident involving Mike Fry and Bev Comber. The pair were rounding Paddock side by side while dicing for second place when the two cars touched and went heavily into the tyre wall at the bottom of the hill. Comber escaped the massive impact unhurt, but Fry's car had flipped and the driver was trapped and unconscious. After being carefully cut from the wreckage he was taken to hospital with serious head injuries.

Following a long delay the race was restarted, with Gerald Dale leading Mark Jones home after Danny Allpress retired from the lead with a puncture.

ADAM COOPER

Midfield JPS scrap between Bailey, Charles, Pring, Mansell, Kestenbaum and Hine.



BRANDS HATCH — BARC

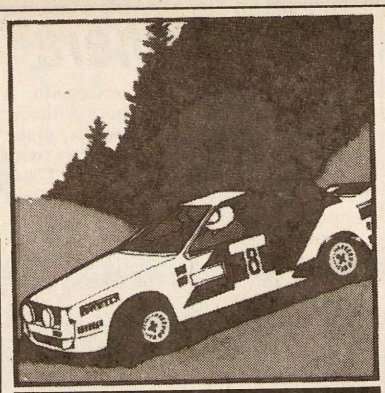
JPS Champion of Brands FF1600 qualification race (10 laps): 1, Ringo Hine (Van Diemen-Swindon RF84), 8m42.0s, 83.00 mph; 2, Stuart Kestenbaum (Lola-Auriga T644E), 8m50.8s; 3, Derek Pring (Ray-Nolan 83F), 8m51.7s; 4, Julian Westwood (Van Diemen-Minister RF85), 8m52.7s; 5, Bob Lambert (Van Diemen-Minister RF82), 8m53.0s; 6, Paul Spooner (Lola-Minister T644E), 8m53.7s. **Fastest Lap:** Hine, 50.8s, 85.29s.

Winter Warmer Series GT race (12 laps) — Overall: 1, David Ellis (Aston Martin V8) 10m04.0s, 86.08 mph; 2, Rob Cox (1.8 Lotus Elan), 10m04.6s; 3, Rod Birley (3.4 Ford Sierra), 10m28.0s; 4, Mark Spencer (2.0 Ford Escort Turbo), 10m28.6s. **Class A:** 1, Ellis; 2, Birley; 3, Spencer. **Fastest lap:** Ellis, 48.2s, 89.89 mph. **Class B:** 1, Cox; 2, Tony Davis (2.5 Vauxhall Firenza), 10m32.9s; 3, Jon Fletcher (2.0 Lotus Esprit), 11 laps. **Fastest lap:** Cox, 49.3s, 87.88 mph. **Class C:** No finishers. **Fastest lap:** Eddie McLurg (1.5 Lotus Esprit), 49.3s, 87.88 mph. **Class D:** 1, John Pugsley (1.0 Sunbeam Stiletto), 10m47.0s, 80.36 mph. 2, Bob Jarvis (1.0 Bevan Imp), 10m57.3s; 3, Lee Baldwin (1.0 Davrian), 10m04.3s. **Fastest lap:** Pugsley, 50.9s, 85.12 mph.

Non-championship Clubman Sports race (10 laps): 1, Tony Pouyanne (Silver Phantom TP84), 8m15.5s, 87.44 mph. 2, Tim Moores (Gryphon C4A), 8m17.4s; 3, Mike Sanders (Mallock Mk27), 8m45.4s; 4, John Younghusband (Mallock Mk22), 8m54.9s; 5, Ed Mercer (Mallock MkII/18), 8m55.3s; 6, Chris Hart (Mallock Mk 18), 9m04.0s. **Fastest lap:** Pouyanne, 48.2s, 89.89 mph.

JPS Champion of Brands FF1600 race, (12 laps): 1, Gary Ayles (Quest-Ivey FF86), 10m10.5s, 85.16 mph. 2, Andrew Stapley (Ray-Auriga 85F), 10m11.9s; 3, Andy Mathew (Ray-Minister 83F), 10m13.2s; 4, Rowan Dewhurst (Van Diemen-Minister RF85), 10m17.9s; 5, Luis Villalba (Laser-Minister HD85), 10m18.3s; 6, Bob Berridge (Lola-Oselli T640E), 10m19.3s. **Fastest lap:** Ayles & Stapley, 49.8, 87.00 mph.

Non-championship Mini Se7en and Mini Miglia race (10 laps) — Overall and 1000cc: 1, Gerald Dale, 9m39.8s, 74.73 mph. 2, Mark Jones, 9m43.8s; 3, John Bailey, 10m10.0s. **Fastest lap:** Dale, 55.6s, 77.93 mph. **850cc:** 1, Gary Hall, 10m14.1s, 70.55 mph. 2, Michael Jackson, 10m22.5s; 3, Steve Mole, 10m23.1s. **Fastest lap:** Jackson, 59.3s, 73.06 mph **(equals record).**



INTERNATIONAL RALLIES

On the beach

PAGOS DEL TUYU RALLY, Oct 4-6: Over 80 entries were received for this event run through seaside resorts in the proximity of Buenos Aires, based on Madariaga, perhaps better known as the Rally of the Coast. Run over 13 stages, the rally was a counter for the National Rally Championship.

From the outset, young Gabriel Raies set the pace in a Renault 18, with Perkins (Peugeot 504) and Bescham (Fiat Super Europa — aka Fiat 128) in pursuit. Class 1 was led by the Fiat 128 of Maurizzi. As the rally progressed, Chiavarolle moved up a gear in his Renault 18 and started to win stages, with Perkins placing consistently to take the overall lead from Raies by the end of the third stage.

Stage 7 was, unusually, planned to take place along the beach between Punta Medanos and Mar de Ajo, but had to be cancelled due to high tide! At the end of the second day, Raies led overall from Perkins and Chiavarolle, the three being covered by just 43secs. A sad retirement at this stage was Torras whose gearbox gave up the ghost, abbreviating his challenge of Bescham for the Class 2 lead.

The weather then took a turn for the worse on the last day, when heavy downpours left Stage 10 thick with mud, handing Raies an advantage over the RWD Peugeot of Perkins. Many drivers risked penalty by changing their tyres and arriving late for the start, but considered the advantage of deep-grooved tyres to be worth it.

At the conclusion there were 33 finishers and Raies came home almost 4mins ahead of Perkins with Class 3 winner Bescham coming home third. This result means that semi-works driver Raies moves closer to Soto and Recalde for the season's title, with three events to go. And in Class 2, Torras is now just two points ahead of Bescham.

ANTONIO WATSON

PAGOS DEL TUYU RALLY (RA)

Argentinian Rally Championship

1, Raies/Campana (Renault 18 GTXEL), 4h03m55s; 2, Perkins/Muzio (Peugeot 504 GRTN), 4h06m51s; 3, Bescham/Garcia (Fiat Super Europa—2), 4h23m07s; 4, Pecci/Ferugini (Peugeot 504 GRTN), 4h51m05s; 5, Flores/Abinene (Fiat Europa-2), 4h51m21s; 6, Renzi/Esfil (Fiat Europa — 2), 4h55m56s;

7, Oribe/Dechecchi (Subaru), 5h02m39s; 8, Marino/Ghilini (Fiat Super Europa—2), 5h09m34s; 9, Pinasco/Cremonte (Renault 12TS — 2), 5h14m06s; 10, Rasetto/Martina (Fiat 128 — 1), 5h15m44s.

Top line rallying in Argentina is very different from that in the UK, as the two most used cars are the Fiat Europa (128 to us) and the Renault 12 (Class 2 series leader Miguel Torras below).

NATIONAL RALLIES

Pembrey duel

Nov 10: Opel Manta drivers Steve Baber and Tony Morgan had a fine duel on the long stages at Pembrey airfield near Llanelli last Sunday and at the finish of the Maesteg DMC event only 4secs separated them. Morgan had set a cracking pace on the opening two stages and had opened up a lead of a handful of seconds only to see it disappear when he slid wide and Baber nipped through to hang on and win by 5secs.

VALVECHATTER STAGES

1, Steve Baber/Tony Morgan (Opel Manta), 67m 25s; 2, Tony Morgan/David Campbell-Ace (Opel Manta), 67m 30s; 3, Gordon Bachelor/Geoff Maybank (Ford Escort) 69m 21s; 4, Tony Rees/Geoff Tremblett (Sunbeam 1600) 70m 02s; 5, O Williams/R Stepney (Ford Escort), 70m 05s; 6, G Trussler/L Rees (Ford Escort 1700), 70m 35s.

No giving way

Nov 09/10: After a 128 mile route in the Thames Valley and parts of Northamptonshire with their usual practise of reverse running not causing any problems, Derek Arnold and Chris Jones had a 7min victory on this Craven MC event.

In the first half, Arnold/White pulled out a 2min lead ahead of novice crew Warren Gilbert/Neil Dixon but they went off the leaderboard when they picked up a fail for a Give Way offence. However two other novice crews finished third and fourth after much shuffling of the pack in the second half.

CLUBMANS RALLY

1, Derek Arnold/Chris White (Ford Escort RS2000), 17m 04s; 2, Alex Hoyle/Joy Cox (Ford Escort RS2000), 24m 42s; 3, John Leonard/David Reeves (Ford Escort Mexico), 28m 01s; 4, Nick Turner/Darren McDermott (Ford Escort Mexico), 32m 07s; 5, Malcolm Anderson/Keith Hounslow (Sunbeam Imp Sport), 32m 13s; 6, Mick Marks/Ian Cheeseman (Ford Escort 1600), 34m 46s.

Teenage upset

Nov 10: A spirited drive from teenager Alisdair Stewart almost brought an upset on the south of Scotland CC's Hallburn Stages at the old airfield of the same name near Carlisle.

Throughout the day Stewart drove his Vauxhall Nova in stern pursuit of Mike Byrne's much faster Escort RS2000 but only 4secs separated them after the eight stage event. Unlucky were Jack Parker/Duncan Mackenzie who were third until the last stage when the gear lever broke off, leaving the car in neutral.

HALLBURN STAGES

1, Mike Byrne/Paul Wilkonson (Ford Escort RS2000), 23m 26s; 2, Alisdair Stewart/Willie Nelson (Vauxhall Nova), 23m 30s; 3, Paul Cecchini/Gillian Robertson (Ford Escort RS2000), 23m 50s; 4, Nick Heyes/John Mitchell (Ford Escort RS2000), 24m 10s; 5, Paul & Raymond Benn (Ford Escort 1300) 24m 46s; 6, Donald McColm/Hamish McGhee (Ford Escort RS), 24m 50s.

Winter's here

Nov 09/10: Winter arrived with a vengeance in the East Midlands with ice, fog, snow and rain combined to make conditions difficult for 53 crews who turned out for the Loughborough CC's G E Motor Factors/Archie Moss/Paul Gray supported Falls Rally.

Some roads not used for a number of years were included, but despite the fresh territory, Peter Wells and Mark Atkinson led all night to win by more than 3mins. Two crews who might have had a say in the results went out with engine troubles. Tony Stubbins who had the head gasket go in the second half and Mark Jasper never got to the petrol half when his Escort expired.

FALLS RALLY

1, Peter Wells/Mark Atkinson (Ford Escort RS2000), 28m 25s; 2, Ray Brown/ Andy Madge (Ford Escort), 31m 33s; 3, Guy Robinson/Charles Wheeldon (Ford Escort), 32m 58s; 4, Michael Lomas/Kevin Booth (Ford Escort RS2000), 37m 18s; 5, Geoff Tootell/Charles Wheeler (Ford Escort RS2000), 38m 04s; 6, C Carannante/J Collister (Fiat 131), 39m 29s.

Stuck in the mud

Nov 10: But for getting stuck rim deep in a muddy patch after picking up a puncture on the second stage Geoff Jones might have prevented Ewan Roberts having a very easy win on the Dovey Valley MC stages event at the old Army site at Tonffanau near Towyn.

As it was, the north Wales driver, who had his mechanic with him for a ride, won as he liked on the six stage event which had 45 entries for the first visit to the site.

TONFFANAU STAGES

1, Ewan Roberts/Gethin Lewis (Talbot Sunbeam 1600), 45m 26s; 2, John Hardman/Andy Moss (Ford Escort RS), 46m 38s; 3, Donald Whitehurst/Geoff Williams (Ford Escort RS), 46m 52s; 4, John & Ramona Aston (Peugeot 205 GTi), 47m 00s; 5, D Rowlands/I Pilkington (Ford Escort RS), 48m 13s; 6, H Griffiths/Carol Thomas (Ford Escort RS), 48m 24s.

Baled out

Nov 09: One small slip — a trip in the straw bales near the end — was enough to cost David Kedward/Paul Brinsford victory on the Cheltenham MC's event at Chedworth airfield near Cheltenham.

Mick Beddoes and Dave Hunt took advantage of the Nissan driver's tiny error and put his 2.2-litre Escort ahead and hung on to win by 14 secs after eight stages over the concrete.

CHELTENHAM STAGES

1, Nick Beddoes/Dave Hunt (Ford Escort), 34m25s; 2, David Kedward/Paul Brinsford (Nissan 240RS), 34m 39s; 3, Stephen & Judy King (Ford Escort RS2000), 35m 02s; 4, John Pickford/Dave Lewis (Ford Escort RS), 35m 33s; 5, Mike Piranty/Martin Smith (Ford Escort RS), 35m 43s; 6, Manuel de Fueiroz/Paul Bell (Ford Escort 1600), 35m 58s.

Miles ahead

Nov 09/10: A route of just over 130 miles within a radius of 15 miles of the south west Wales town of Tregaron was arranged by Lampeter MC for 46 crews on their night event which had icy patches causing some problems for the less experienced.

Gareth Richards and Paul Jones nipped round with the loss of just over 15mins and they and Vince Davies/Kevin Evans were streets ahead of the rest.

RALI BRO CARON

1, Gareth Richards/Paul Jones (Ford Escort RS2000), 15m 18s; 2, Vince Davies/Kevin Evans (Ford Escort RS2000), 16m 23s; 3, Kevin Pritchard/Chris Jones (Ford Escort RS2000), 26m 56s; 4, Alun Probert/Graham Tong (Ford Escort 1600), 34m 42s; 5, Islwyn Evans/Alun Davies (Ford Capri), 37m 03s; 6, Nigel Davies/Martin Williams (Opel Manta), 38m 33s.

Moore the merrier

CHIEFTAIN RALLY, Nov 10: Although victory fell to Brian Moore, his Dorset Fuels backed team mate, Andy Orchard, took second place on Sunday's Eclipse Chieftain Rally and thus secured the ASWMC Championship for 1985. Moore took an easy win, never troubled on a cold, crisp day, which saw many others in trouble on the demanding roads of Salisbury Plain. Two serious accidents ultimately cost Bath MC/Tavern MC several stages as rescue cover became dangerously stretched.

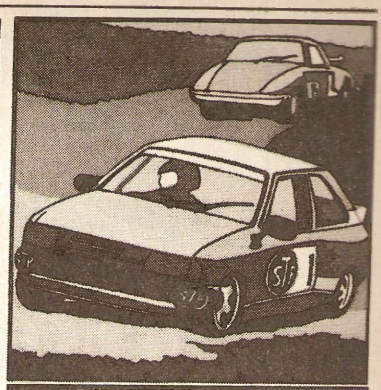
Ian Giles took National Champion co-driver, Pete Davis along in the ex-works Rover Vitesse and netted third, ahead of team mate, Del Lines, while a superb run from Steve Coombes (seeded 69) produced fifth. Another excellent performance gave Gethin Jones victory on the final round of the Fiat 1300 Challenge, his Uno coming straight from the box and prepared in just two days.

KEITH OSWIN

ECLIPSE CHIEFTAIN RALLY

1, Brian Moore/Graham Lacey (Ford Escort RS), 33m36s; 2, Andy Orchard/Paul Hughes (Ford Escort Mk3), 34m30s; 3, Ian Giles/Pete Davies (Rover Vitesse), 34m55s; 4, Del Lines/Mike Hooper (Rover Vitesse), 35m11s; 5, Steve Coombes/Rupert Barker (Ford Escort RS), 35m32s; 6, Mark Adams/Mark Harris (Ford Escort RS), 35m49s.

It was a good weekend for the Dorset Fuels team, with a 1-2 result.



OFF TRACK SPORT

Fred rules

KIRKISTOWN, Nov 02: Fred Patterson is currently dominating the rallycross scene in Northern Ireland with his 3.5-litre ex-Des Winks Porsche. Just one week after winning the opening round of the Belfast Car Ferries Rallycross Championship at Mallusk, he won the final at the opening round of the Kirkistown Rallycross Championship, over a new course that has met with a lot of approval.

A close second to Patterson was young Jackie Harris in his ex-Reeves Metro, then there was a large gap to the third placed driver, making his first major final, Alan Lyons in his Mini. Earlier in the afternoon, the four qualifying heats went to Richard Dillon, Patterson, Harris and Lyons.

IAN LYNAS

Carey pursues Dillon in the heats. Below: Patterson scurries round in the gathering darkness to win the final.

KIRKISTOWN RALLYCROSS

Kirkistown Rallycross Championship, round 1

Division 1 heat 1: 1, Richard Dillon (Porsche 3.0), 4m07.2s; 2, Con Carey (Ford Escort 1700 Turbo), 4m07.6s; 3, David Francis (2.0 Ford Escort), 4m08,9s; Fred Crawford (2.0 Ford Escort), DNF.

Division 1 heat 2: 1, Fred Patterson (Porsche 3.5), 3m56.9s; Ronnie White (2.0 Ford Fiesta), 4m02.5s; 3, Nigel Allen (2.0 Ford Escort), 4m06.1s; 4, Alistair Galloway (Opel Ascona), 4m08.6s.

Division 2 heat 1: 1, Jackie Harris (1.5 Austin Metro), 4m04.8s; 2, Stephen Marsden (1.6 Ford Escort), 4m15,9s; 3, Jim Kittle (1.3 Mini), 4m22.0s; Jimmy Peak (1.3 Mini), DNF.

Division 2 heat 2: Alan Lyons (1.5 Mini), 4m05.7s; 2, John McNeice (1.5 Mini), 4m08.9s; John Strain (1.5 Mini), 4m09.5s; 4, Tony Tilley (1.3 Mini), 4m23.3s.

Final: 1, Patterson, 3m55.6s; 2, Harris, 3m57.7s; 3, Lyons, 4m17.0s; White, DNF.

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