

# Autosport


A Haymarket publication

January 6, 1983 85p

Daily Mail

## MOTOR SPORTS SHOW

### OFFICIAL GUIDE



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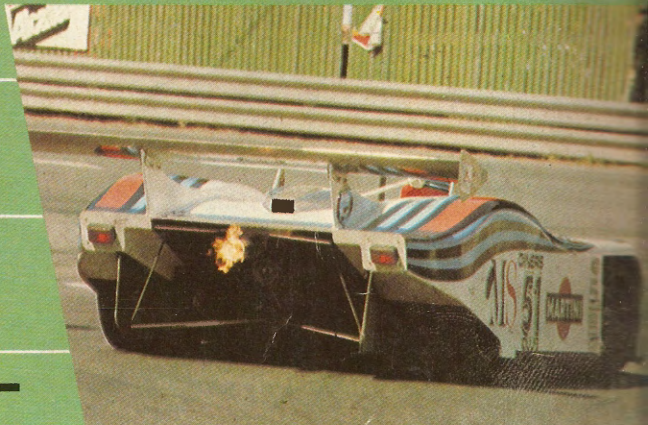
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**Sports car  
racing revival**

**F1 interview:  
Elio de Angelis**

**Safety racewear  
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**Mears & Penske-  
Indycar crown**



# INSIDE!



**EXTRA!**  
**SPECIAL SUPPLEMENT**  
Endurance Racing  
Review

# Autosport

## FRONT COVER

Top: Lancia's little Group 6 *barchetta* may not have been eligible for World Endurance Championship points, but it certainly frightened the works Porsches on occasions. Quentin Spurring's *Seasonal Survey* can be found in one of the two supplements included in this issue. Bottom: This Indycar action sees Johnny Rutherford (Chaparral) leading Rick Mears (Penske), Tom Sneva (March) and Mario Andretti (Wildcat). *Seasonal Survey*; page 38.

## NEXT WEEK

World Rally Championship review: Peter Foubister explains how the 1982 season saw struggles between Walter Rohrl and Michele Mouton for the drivers' title, and between Audi and Opel for the manufacturers' honours — Monte Carlo Rally preview — News and views from the *Daily Mail* Motor Sports Show — The Champions: the first part of our salute to the 1982 national racing champions — Historic racing survey — Plus all our usual news and features\*

\*These items correct at time of going to press.

Editor	Mark Hughes
Technical Editor	John Bolster
Grand Prix Editor	Nigel Roebuck
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Publishing Director	Paul Camp
Managing Director	Simon Taylor

Advertisement Manager Tony Schulp

## ADVERTISEMENT DEPARTMENT

Colour Advertising: Stuart Dent. Display Advertising: Martin Nott, Simon Maurice. Classified Advertising: Chris Dickens, John Hollway, Julian Collam. Production: Chris O'Connell.

## CORRESPONDENTS

North America: Gordon Kirby. Australia: Bob Jennings. Italy: Pino Allievi. Japan: Kunihiko Akai. New Zealand: Peter Greenslade. South Africa: Colin Windell. West Germany: Wolfgang Monsehr. Midlands: Derek Hill. North: Paul Boothroyd. Eire: Brian Foley. Scotland: Bill Henderson. Ulster: Eiler Crawford. Track Tests: Tiff Needell.

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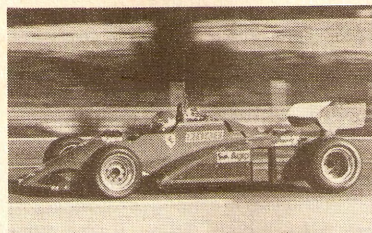
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## PIT & PADDOCK 4

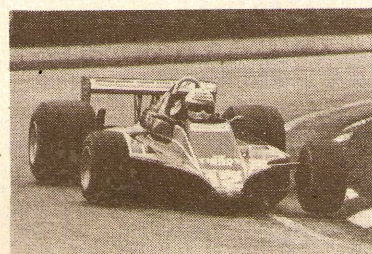


International motor racing news — FISA prize-giving and press conference — More Ricard testing — Mike Earle to run works F2 Marches — Winkelhock stays with ATS — No flat bottoms for F2 and F3 — Tyrrell to test Giacomelli and Corrado Fabi . . .

## COMMENT 8

We look forward to the Motor Sports Show, and congratulate Brands Hatch on winning the FOCA award for the best Grand Prix of 1982. You voice your opinions, we look back with *Then as now?* and *Catchpole* has his own little say . . .

## ELIO DE ANGELIS 10



Our Italian Correspondent, Pino Allievi, has been talking to Elio de Angelis, who is about to begin his fourth season with Lotus.

## SPECIAL STAGE 12



All the rallying news — Rohrl fined by FISA — Brooks rejects B-seeding — Jean-Pierre Nicholas to test Peugeot Group B car — Peking-Paris postponed — Andrews sponsor Tour of Cumbria . . .

## SAFETY RACEWEAR 14

Track tester Tiff Needell has been busy recently in carrying out a comprehensive survey of all the personal equipment required by any competition driver. Here is his report.

## TRACK TEST 23



John Midgley entrusted his Group A Toyota Corolla to the experienced hands of John Taylor, who finds out how competitive the car is likely to be in next year's Open series.

## SEASONAL SURVEY 24



Italian 'Tony Fassina' won the 1982 European Rally Championship after a hard tussle with the similar Opel Ascona 400 of Scotsman Jimmy McRae. Martin Holmes tells the story.

## SPORTS EXTRA 27

National motor sport news — New Van Diemen RF83 — Revised Lola for 1983: the T642E — Bigger 'n' Better ASCAR series — Go for green with Nolan.

## SEASONAL SURVEY 28



A look back at the Scottish, Irish and Welsh national rally championships by our regional correspondents, plus reports on the Esso/BTRDA and *Motoring News* series.

## SEASONAL SURVEY 38



Gordon Kirby reflects on another action-packed Indycar season, one in which Rick Mears scored his third title in four years but was denied victory in the Indianapolis 500 by a determined Gordon Johncock.

## ROAD TEST 46

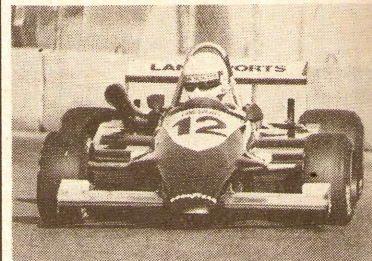


Volvo may not be well known for their sporting cars, but John Bolster has been testing their latest 2-litre, fuel-injected, high-performance 'baby' car, the 360 GLT, and was pleasantly surprised by its refinement.

## ROAD CAR 49

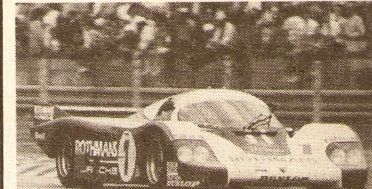
John Bolster reports that the BMW 7 Series has become even more refined with its facelift.

## SPORTSCARD 50



The first international motor race of the New Year took place at Bay Park, New Zealand on January 2 — Rallycross wins for Barry Squibb and Trevor Hopkins — Malcolm Davey's Christmas Stages — Alec Cannon takes Ouston Gold Cup . . .

## SUPPLEMENT



Included in this issue is a special supplement containing Quentin Spurring's exhaustive and expert assessment of the first year of Group C. Are we witnessing the revival of sports car racing?

## MOTOR SPORTS SHOW GUIDE

This issue also contains the official guide to the *Daily Mail* Motor Sports Show, which opens at the Cunard International Hotel in Hammersmith, London, tomorrow. Indispensable if you plan to visit the first show of this nature for many years, this catalogue contains many features as well as a comprehensive stand-by-stand guide.

## FISA Prize-giving

### Keke Rosberg and Jacky Ickx claim the major awards

The annual FISA prizegiving late in December was overshadowed by the death of Colin Chapman. At the ceremony and the preceding press conference, Jean-Marie Balestre repeated FISA's brief but moving tribute to "a great engineer" who more than any other was responsible for the concept of the modern racing car.

The news of his death had been received during the meeting of the FISA Executive Committee that, ironically, was rubber-stamping the agreement to ban ground effect.

That agreement having been reached, the end-of-season press conference was one of the more peaceful in recent years — no bombshells, no polemics, no table-thumping.

We detail the decisions announced elsewhere in *Pit and Paddock* but it made a nice prelude to a generally very pleasant, and once hilarious, prize-giving ceremony.

The other sour note there was the absence of Walter Rohrl, represented by his co-driver Christian Geistdorfer who whispered to Balestre as he went on to the rostrum. The President immediately took the microphone to announce acidly that Mr Rohrl was not coming and had given a manifestly inadequate excuse.

Under the FISA rules, that could cost Rohrl \$10,000.

Jacky Ickx, World Endurance Champion, caused some surprise by making a speech, noting that the last time he had been on that platform was in 1967 as European F2 Champion, and that the nearest he got to being World Champion was when Jochen Rindt was post-humously. Typically, Ickx said Rindt was the better man.



Jacky Ickx — Endurance champion.

Then Michele Alboreto got particularly warm applause when he received the Candy Master Driver Championship Trophy, which is a worthy award but seemed a bit out of place at a FISA ceremony.

And it was the turn of our heroes — Wattie, another warm hand. Didier,

excused because he was having a medical examination that day, but had been at the French National prizegiving in his wheelchair that week, and Keke.

Ah, Keke. He started his speech: "Ladies and Gentlemen, Meine Damen und Herren" — and then it was all in Finnish. The room started giggling, then laughing, and in the back rows a friend of Keke's pulled a \$100 bill from his pocket.

Afterwards, Keke told us that "I understand that motor racing's language is English, but I thought it would liven things up a bit . . . and I really think tonight was the night I could speak Finnish here."

In fact, he confessed he makes speeches more easily in English than Finnish, because he is more used to it. "But then if I made mistakes tonight, no one would know."

Almost no one, that is. Hannu Mikkola was there to get third prize in the World Rally Drivers Championship, and there were a number of Finnish Auto Club officials to see Keke crowned. As Rosberg said, it was a night that showed that Finns could make it on the track as well as the special stages.

Chatting after the ceremony, Rosberg paid a compliment to Balestre on the 1983 rules. "I think he's done a great thing," he said. "It took a lot of guts to make that decision, and to get it through peacefully."

"I take my hat off to him. It's a good thing for the sport."

That's not to say that Rosberg unconditionally supports FISA. Those six points he lost in Brazil still rankle, but moreover, "They had no right to punish Nelson, who gave all he had and more to win the race, even fainting afterwards."

We asked him what he thought of the study to be made into changing the points scoring system, because of the worry that he might have won the title without even winning a race.

Rosberg's first comment was that "Even at 12 points for a win, I would still have won the title."

"And so what if I didn't win a race. As Roger Penske said: 'To finish first, first you have to finish'."

"Everybody should learn that. If it was the most wins, then we had five people who won two races each this year . . . I think the champion is the man who has the best finishes in all the races throughout the season, because part of being a driver is learning to drive fast and finish."

"That's why it takes a long time to learn to drive a two-hour Grand Prix, to learn the absolute limit of man and equipment. Any F2 driver can be quick for part of the race."

"When Carlos finished 16 races in the points in a row, everyone praised him — when I win on reliability and racing tactics, I'm criticised."

Rosberg said he didn't mind a change in the scoring rules as long as it was the same for everyone — "No points for

pole, what does qualifying mean anyway, and none for half-way positions, or we could run a 4-litre Cosworth or turbos with top boost and half-tanks."

The new champion was critical of the 1983 season layout in which there are four occasions when races are only one week apart.

"It makes no difference to me. If there isn't a race, I test. But it's not fair to the mechanics who have to prepare the cars. In one week between races — four days, really — they can't reasonably do their work, and they are the ones who get stuck if there's a failure."

A side of Rosberg that is appealing is that he still likes racing for racing's sake, and will be seen in other types of car this year (though it doesn't hurt being World Champion when the cheque comes along, and Keke is unashamedly using his championship year, which he realizes may be his only one, to build a nice financial base).

So in 1983 he plans to do some touring car events and would like to do some Group C as well.

"But not Le Mans. I was approached a few weeks ago. I wouldn't mind doing the first one or two hours, but it's just too dangerous at night with 300 drivers and the speed differentials."

## Balestre's balance sheet

At his press conference, Jean-Marie Balestre said new rules were being worked out for the operation of the FIA Tribunal of Appeal. He gave no details, but English and some French Lawyers who have pleaded before the tribunal have privately criticised its procedures as being quasi-judicial but not conforming fully to any code of legal practice.

The Endurance Championship had been risky to launch in 1982 but had also proved a great success, he said. An important development for 1983 was that Japan was back with a Manufacturers' as well as a Drivers' round, he said.

(He made a plea for the new title of World Endurance Championship for Manufacturers to be used, rather than the old "Makes" title.)

"Formula 2 finished the year better than it started, and was a good championship for Europe," said Balestre. European F3 "had some difficult moments" because there were too many races, 14 being too many for drivers in this championship, he said.

He stressed that the new FIA World Cup (Mondial) "will not cause any prejudice to the European F2 Championship."

winner John Penfold's Van Diemen RF81 is a late display car for the BRSCC's Club Champions stand.

● As part of the publicity campaign for the Show, one of Brands Hatch Racing's Royale RP29s has been perched on the side of the Cunard International Exhibition Centre, facing the famous Hammersmith fly-over; a new traffic hazard for West London, perhaps?

Reviewing the Executive Committee decisions, Balestre noted that the endurance calendar of seven events, Daytona having pulled out, was completed by the European Championship for Group C Junior, with more races on the same continent. In Group B, qualifying will be based on 120% of the three fastest times in Group B.

FISA is studying the use of diesel engines in the Endurance Championship, and is creating a financial pool for transport of more cars to extra-European races.



Jean-Marie Balestre — summing up.

Balestre listed the F1 team entries for 1983 (now closed), two cars for everyone except ATS and Osella, and no Fittipaldi, 28 cars in all. All entry fees have been paid.

Because of the delay in starting the season (and because of the shambles in some teams, we suppose), the deadline for driver nominations has been set back to January 31, and existing nominations may be changed, though Balestre stressed he did not know of any that might be.

Although he had said in November that one race would be definitely dropped, the F1 Committee now unanimously wants to list 17, as a safety net to ensure 16 will be run. Under questioning, Balestre would not give any deadline by which a race must be cancelled.

The New York race will be at the Flushing Meadows site, between La Guardia and JFK airports, according to Americans at the FISA meetings.

There have been three clarifications to the technical regs, concerning strength of materials, frontal protection and the side bodywork.

The executive Committee adopted the 195-litre fuel tank limit for 1985 as a first attempt to limit horsepower to 500-550, but has set up a group to report by next October on tests of ways to most efficiently meet that horsepower limit. From January 1, 1985, the chassis must include three new transverse hoops to further protect the cockpit survival cell, and side panel thickness will be increased from 10 to 20mm.

There will also be a study on how to prevent wheels locking (the wheel of one car getting inside the two wheels of another car) in accidents.

Drivers will have two seats and two votes on the F1 Commission from 1983.

● Currently under preparation for the new British Open series is a Williams FWO7 which Colin Bennett Racing will be displaying at the Show. To allow technically minded visitors the best chance to inspect the intricacies of a Formula 1 car, Colin has "exploded it", mounted the bodywork on stilts and stripped away wheels and some suspension parts.

● Don't forget the AUTOSPORT stand.

Daily Mail  
**MOTOR  
SPORTS  
SHOW**

● Trimoco (née Tricentrol) are holding a meeting during the *Daily Mail* Motor Sports Show to discuss the 1983 British Saloon Car Championship. The gathering of drivers, entrants and organisers is at 2.30pm on Wednesday, January 12 in the Club Room. The new series co-ordinator, Bill Foster says that the meeting is by private invitation only.

● Dunlop-AUTOSPORT 'Star of Tomorrow'

This week's AUTOSPORT is the second of two bumper issues containing much, much more than your usual AUTOSPORT, and is again priced at 85p.

Like the edition of December 23/30, 1982, this week's issue contains two supplements. The World Endurance Championship Review Supplement contains Quentin Spurring's expert assessment of the revival of sports car racing in 1982, while the official catalogue for the Daily Mail Motor Sports Show, which opens tomorrow, will be essential for any one planning to visit this important event. In addition, this week's issue includes a special investigation into safety racewear, reviews of the 1982 Indycar and club rallying seasons, and a conversation with Lotus's unobtrusive number one, Elio de Angelis.

The special Christmas issue contained the 1983 Ford Competition Yearbook, Nigel Roebuck's appraisal of the 1982 Grand Prix season, as well as a feature about motor racing movies, interviews with World Champion Keke Rosberg and Grovewood Award winner Martin Brundle, and the winners of the 1982 AUTOSPORT Awards. A limited number of copies of this issue will be available on our stands at the Daily Mail Motor Sports Show.

Next week's AUTOSPORT, to be published on January 13, will revert to the normal price of 60p.

## March Engineering: Formula 1 project

Robin Herd has finally confirmed that he is working on a Formula 1 project at March Engineering and that a car will appear in late 1983 driven by Teo Fabi.

"For the first time ever we have got the time and the budget to build the car we want to," said Herd. "There's no pressure to compromise it and we shall take our time and try to do it properly."

The car will be running towards the middle of the year and Herd expects to race it at Monza and South Africa — "then we will decide whether we want to carry on in 1984."

Herd's project at March Engineering does not affect John Macdonald's March Grand Prix team, which is currently hard at work producing a new chassis for Eliseo Salazar to drive in 1983.

Herd was not prepared to say where the backing was coming from for the F1 project — "suffice it to say that it beats our previous best, which was £85,000 in 1976!". He is also not letting on about the engine, either, although with their Indy experience a turbo installation would not be difficult, and with the F2 link it would logically be a BMW.

## Flat bottoms stay in F2 and F3 until 1985

Production racing car manufacturers breathed a sigh of relief when the FISA Executive Committee resolved at the pre-Christmas meeting not to introduce flat bottoms until 1985.

It appears that when the Committee first met they were hell-bent on introducing the F1-style rules for F2 in 1983 and F3 in 1984, disregarding the majority view expressed at the early December Round Table. However, personal intervention by FISA President Jean-Marie Balestre and strong representation by the RAC's Neil Eason — Gibson managed to ensure that the stability rules were adhered to, and so 1985 was the date adopted for all formulae.

It is fairly obvious that without the Round Table meeting the constructors would have been faced with the immedi-

ate adoption of flat bottoms, but now will have the opportunity of another meeting next June to go through the F1 regulations and decide how the 1985 rules should be. Thereafter, there will be an annual Round Table to discuss the regulations and different formulae.

Meanwhile the F2 4cm rule has not been satisfactorily resolved, there being an anomaly in the French and English text, one of which says "should be" and the other "must be". FISA have therefore decided to take laser equipment to all F2 races to measure the height of the skirts while the cars are running. This could result in a 7cm stationary height and may have the same effect as flat bottoms.

On the other hand it could lead to a lot of arguing . . .



Mayer — severed ties.

## McLaren split

Teddy Mayer and Tyler Alexander have severed their ties with McLaren. For some months now there have been strong rumours of a move within the company to oust Mayer, and we were led to believe that the only stumbling block was the question of agreeing the sum necessary to buy him out. This has obviously now been resolved, and Mayer and Alexander, the last two links with Bruce McLaren, are gone from the company. The men of Project Four Racing, led by Ron Dennis, are now in full command.

On Friday, December 17, McLaren International issued a statement: "After two successful years with McLaren International, Joint Managing Director Teddy Mayer and his fellow director Tyler Alexander have sold their interests in both Team McLaren and McLaren International.

"Mr Mayer stated that the amalgamation of Team McLaren and Project Four Racing created an unnecessary overlap of management abilities, so when an opportunity arose which was mutually beneficial to everyone, we decided to take it.

"The new McLaren International Board will be comprised of (sic) Ron Dennis, John Bernard and Creighton Brown, and a new director soon to be announced."

## Ligier still looking for second sponsor

At the New Year, Guy Ligier told French journalists he was very worried about the prospects for 1983.

He indicated he has not yet found any major sponsor to supplement his Gitanes money, largely because of the late withdrawal of Talbot. "We will continue

looking until the last moment" He said. Adding he would go to the limit to get his cars onto the grid.

Despite the money problem, he expressed confidence he would get his Renault turbo engines by mid-season.

## Spa F2 cancelled

With the Belgian Grand Prix now scheduled for Spa this year, the originally scheduled F2 race has been cancelled.

Zolder, who now have a new pits complex and no major races, are hoping to find the support to take over the date, while Jarama have applied to FISA to

hold a race which will probably replace Mantorp Park which seems likely to be cancelled.

No date has yet been agreed for Jarama, but, if Zolder takes the Spa date, it will almost certainly be towards the end of the season.

## Winkelhock to stay with ATS outfit

In the days immediately before Christmas, strong rumours from Germany suggested that Manfred Winkelhock would not, after all, be driving for Gunther Schmid's ATS team in 1983. However, it now appears that problems have been resolved, and the German was expected to sign a new contract with ATS early this week.

It seems that the controversy arose when Winkelhock and Schmid failed to agree upon Manfred's financial worth, and we hear that when the choleric Gunther refused to meet his driver's request, Winkelhock effectively said that

he would be quite happy to return to sports and saloon car racing, which he enjoyed rather more.

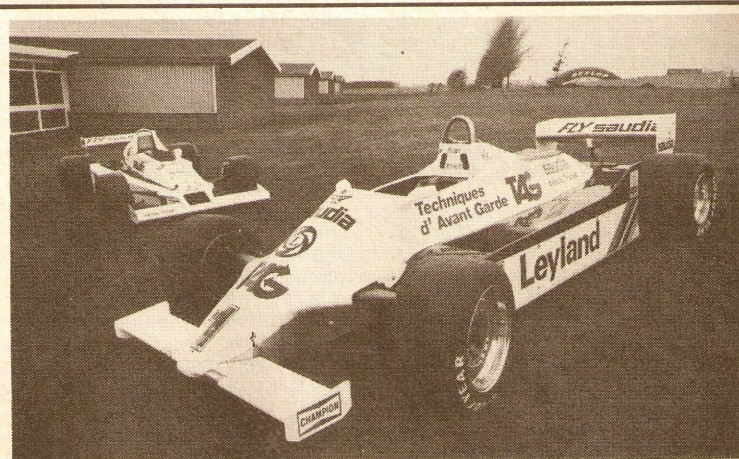
At that stage the word was that Hans-Joachim Stuck would take over the drive, returning to the team for which he drove in 1979, the last season in which he was seen in Formula 1. Stuck has always been very much a BMW man, and ATS are to use the four-cylinder turbo engine in their 1983 single-car campaign.

Stuck recently tested a works Brabham-BMW at Paul Ricard, but unfortunately it seems now that he will not be making a return to the F1 scene.

## Prize money raised for F2

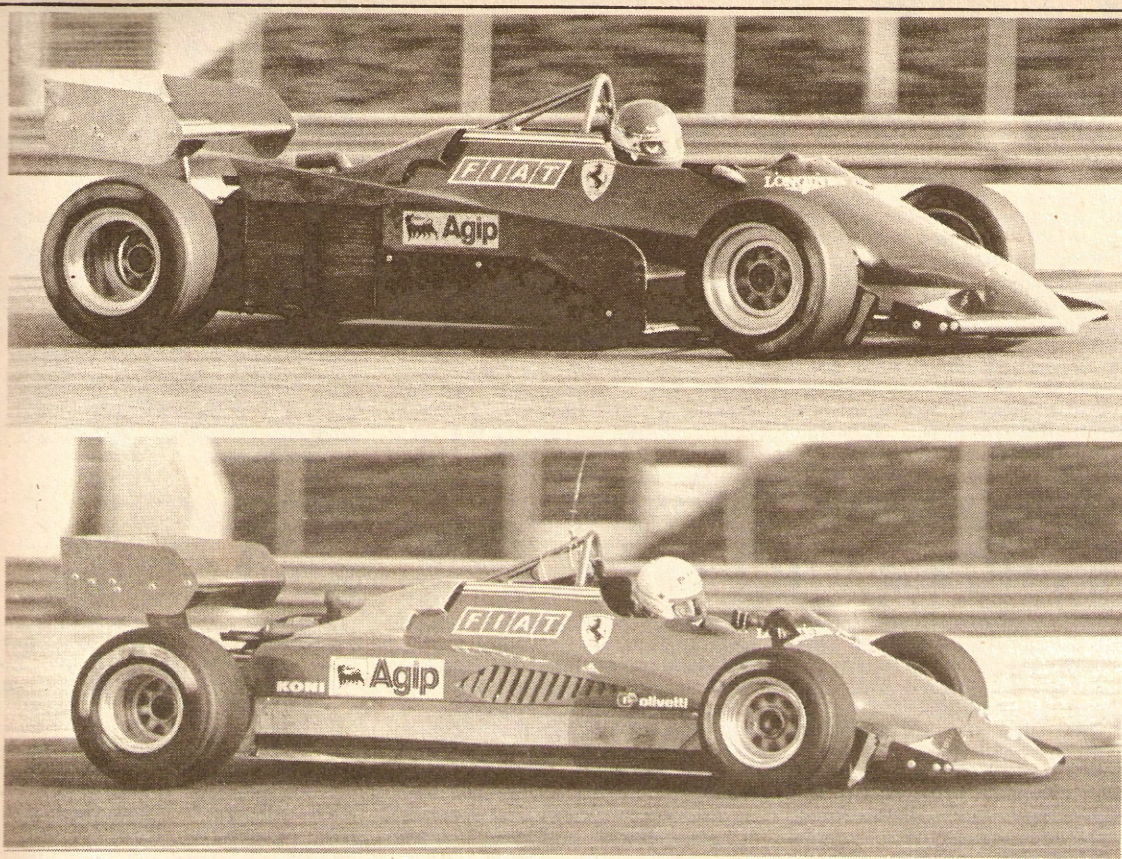
Both the prize and travel money scales for Formula 2 will be increased for 1983.

The travel money fund is to be increased by 10 per cent while the prize money goes up by nearly 20 per cent as a result of recent discussions between a FISA F2 working group and the organisers' Alliance.



## Wheatcroft's Williams

Tom Wheatcroft's winter spending spree has brought yet another famous racing car to the Donington Collection. His latest acquisition is the Williams FW07 (chassis D16) with which Alan Jones won his last Formula 1 race, the Caesars Palace Grand Prix at Las Vegas in 1981. The Williams FW06, which is also on display at Donington, is pictured in the background.



## Winter testing continues at Ricard

Ferrari had a bewildering selection of body shapes, sidepods and wings available during the pre-Christmas tests at Paul Ricard. The latest car (left) is far less elegant than its predecessor (below left) but proved quickest of all. Patrick Tambay and René Arnoux each spent time in both cars, with Patrick — now back to full health — faster than his team-mate.

The latest Brabham-BMW (above far right), now looks as svelte and neat as the Cosworth powered BT49D of early last year. In the hands of Riccardo Patrese, the car set the third fastest time of the week, beaten only by Tambay's Ferrari and Prost's Renault.

Hans-Joachim Stuck had his first drive in an F1 car for three years (above right) doing a few laps in the Brabham-BMW courtesy of his BMW contract.

Corrado Fabi (below right) impressed everyone by getting down to 1m 45.43s in the Brabham-BMW, also driving through BMW connections.

(Below far right) This, we hope, is not an indication of things to come . . . Hideous high front wings, last seen in 1969, were in evidence on Marc Surer's Arrows A5.

## Works F2 Marches for Onyx

Mike Earle's Goodwood-based Onyx Race Engineering have been entrusted with defending the European Formula 2 title as the works March team.

A three-year deal was concluded between Earle and Robin Herd just before Christmas and will take effect with the first proper testing of Ralph Bellamy's new 832 model at Paul Ricard in mid-January.

The contracting-out of the works F2 team by March comes as a result of their success in 1982 and subsequent big build programme for 1983.

The F2 order book, following the wins in the European, Japanese and South African F2 series last year, is already up to 25, while demand for the new 83C Indy car has already created the need for extra capacity. "The build programme and a

couple of other exciting special projects has forced us to move out the racing team," said Robin Herd.

"We are delighted that Mike Earle has accepted the invitation to represent us in the F2 championship and we are sure that his experience and organisational abilities will carry on March's winning tradition in the formula."

Earle's experience in F2 stretches back to 1970 when he guided Derek Bell to second place in the series, while more recently he has been a successful private entrant with March chassis.

The three-car March-Onyx team will have the use of works Rosche BMW engines (the 11th year of the March-BMW tie-up in F2 which has won 67 of 142 championship races) and Michelin tyres.

The driver line-up for the works team will be concluded during the next month, the most likely candidates being Thierry Tassin, Beppe Gabbiani and Christian Danner.

It is quite possible that two other March-backed F2 teams will also contest this year's series, one to be run by long time March employee James Gresham for a couple of Italians from premises near Bicester, and another, using Bridgestone tyres, for Dave Scott, Quique Mansilla or Kenny Acheson.

The new 832 monocoque had its shakedown tests at Silverstone immediately before Christmas. Featuring new front suspension, but retaining the effective 1982 rear end, the complete new car, with revised aerodynamics, will first run at the Michelin tests at Ricard.

## Bobby Unser retires

Shock CART news from the States: after testing the new Wildcat Mk9 at Phoenix, Bobby Unser has announced his retirement from motor racing. His place, alongside Gordon Johncock, in the Patrick Racing team will be taken by Johnny Rutherford.

The news concerning Unser is a major surprise. Bobby left the Penske team at the end of 1981, saying that he was not retiring from the cockpit, but would devote most of the 1982 season to managing Josele Garza's outfit. And when the season finished, he declared his intention to return to racing full time.

The reasons for his change of mind are not yet clear, but it is thought that he was not happy with his own performance during the Phoenix tests. Unser is now 48 years old, and the season's layoff may have meant that he has lost his edge.

Whatever, the news is disastrous for the Patrick outfit, for Bobby was re-

garded as the finest car sorter in the Indy Car business, as well as being a brilliant all-round driver. The team lost no time in replacing him with Rutherford (recently out in the cold, following Jim Hall's departure from the business), but JR does not have Unser's testing skills. Johncock is not much of a sorter, either, so the team could be in trouble with the development of its new Mk9.

Nor do Patrick's troubles end there. Bobby Unser was superb on all types of track, but Rutherford, while a magnificent oval driver, has never been at ease on road circuits — which are entering more and more into the CART schedule.

When news of Bobby's decision came through, JR was on the point of signing for the Forsythe March team, who are understandably less than thrilled about his decision to go to Patrick. It is now thought that Teo Fabi, dropped by the Toleman F1 team, may take over.

## European tyre restrictions

Some real sense came out of the FISA Executive meeting when they decided upon tyre restrictions in both the European Formula 2 and F3 championships this year.

Previously unrestricted and left open to the determination of each tyre company to succeed, teams will be faced with the option of just 14 tyres per meeting for F2, and 10 for F3.

There can be no cheating by the use of lightly grooved wet tyres either as, although the number of wets stays unrestricted, the Clerk of the Course will make the decision as to when they are to be used.

## Revised CanAm engine regs

In an effort to attract ex-F1 machinery to their flagging CanAm series, the SCCA has announced rule changes.

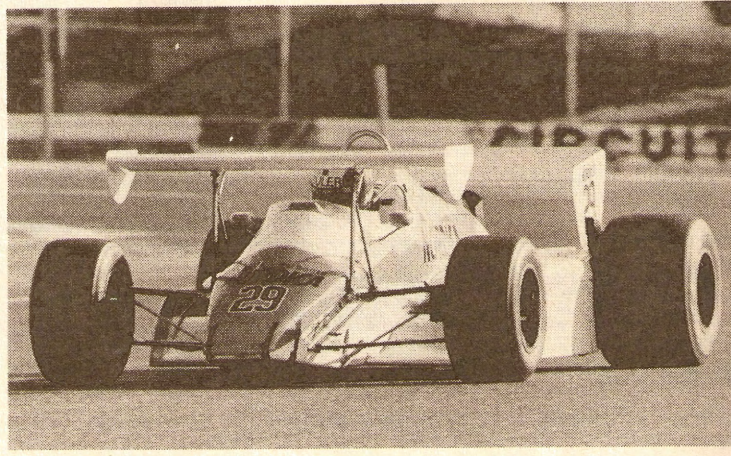
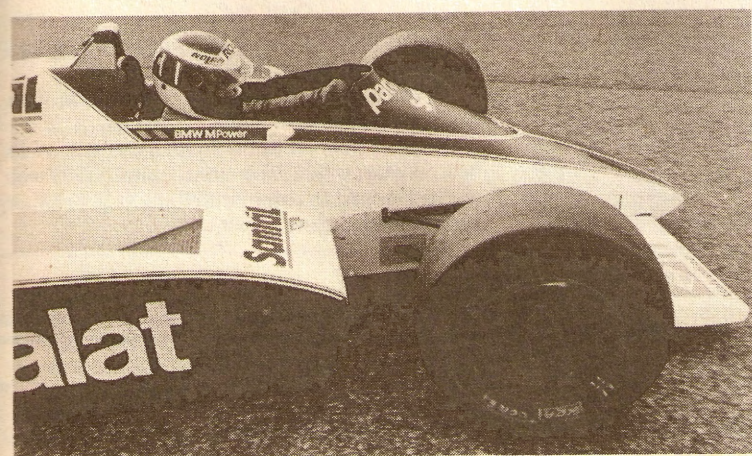
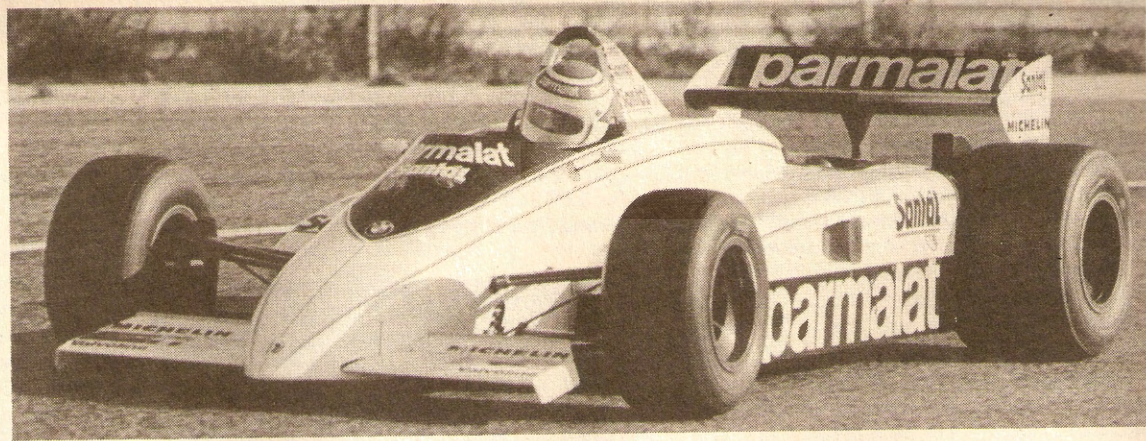
For 1983, 3.3-litre racing engines (ie. DFW . . .) may be used in cars running at the weight limit (650kgs) previously in force for cars with 3-litre engines. For the latter, the weight limit comes down to 600kgs, but our American Editor believes that most likely entrants will go for the 3.3, since no one is likely to be close to a 600kgs limit.

On the entries front, we hear that Jim Crawford will be part of a two-car team, and that Colin Bennett will run a Frisbee for A.N. Other. Another likely runner is Jacques Villeneuve, almost certainly in a VDS or Frisbee.

## F3 water injection outlawed

The practice of fitting water injection systems to Formula 3 engines, which feed directly into the air box, has been outlawed.

The FISA Technical Committee have acknowledged that this system, increasingly popular in Europe last season, circumvents the 23mm restrictor, and they successfully recommended to the Executive to rule that such systems can only be fitted if they feed into the engine upstream of the restrictor.



## VW Scirocco for Morris in Trimoco

Despite the comparative lack of results last year, Volkswagen plan to stay involved in the British Saloon Car Championship with the Scirocco.

Although plans have yet to be finalised it seems likely that Volkswagen stalwart John Morris will run a 1.6-litre Scirocco with some support from VAG. Volkswagen spokesman Tony Hill said: "We will be supporting one or more private individuals in the championship. Obviously John Morris is at the top of our

lists as he has done a good job for Volkswagen over the years."

Although all Scirocco and Golf GTi models now sold have 1.8-litre engines, the racers will continue to run the 1.6-litre versions as this capacity suits the class structure better.

Others known to be interested in running VWs are Richard Lloyd's GTi Engineering who are building a Group A Golf, and Alan Greenhalgh who ran a Golf last year.

## Longman switches back to Ford Escort

Richard Longman will go back to running Fords in this year's British Saloon Car Championship. Although widely expected to develop BL's new MG Metro Turbo in the Trimoco Group A series, it now seems that Longman, team-mate Alan Curnow and backers Datapost, will be running a pair of Ford Escort RS1600s instead.

Changes in the class structures for the Group A championship have meant the small, up-to-the-1300cc, class has vanished, leaving the normally aspirated 1.3-litre Metros that Longman and Curnow ran last year to struggle against RS1600s, Golf GTis and Toyota Corollas. The turbo equivalency factor of 1.4 means that the 1300cc Turbo Metro is pitched into the 2500cc class against the fleet Alfa Romeo GTV6s. Rather than risk being outpaced, Longman decided to run a car with a good chance of class honours.

The last time Longman left BL to run Ford products — in 1980 — came as the

BL Mini 1275GT was nearing the end of its competition life, and the Ford Fiesta was starting. Curnow won the 1300cc class in the car, but Longman's own 1600 Fiesta was never competitive. For 1981 the pair were back with BL.

Austin Rover Group Motorsport spokesman said: "Naturally we are disappointed to see Richard leave a successful car like the Metro, but this in no way affects our plans for our involvement in the series."

It now seems that there may be as many as five RS1600s contesting the championship. As well as the Longman/Curnow pair, rumours suggest that both Tony Dickinson and Neil McGrath will be running the new Ford, while erstwhile Toyota works driver Chris Hodgetts also plans to run one.

Additionally, Andy Rouse Engineering has prepared and is developing an RS Escort on behalf of Ford, while Julian May — who last year ran a 1600cc Fiesta — is known to be interested in the Escort.

## Briefly . . .

● Engines used by three of the leading Marlboro British Formula 3 Championship contenders — the Hesketh/JQF-Toyota of Tommy Byrne, Nicholson McLaren-Toyota of Enrique Mansilla and Brabham-Volkswagen of Martin Brundle — were all stripped recently by RAC Technical Commission member Cecil Mitchell and found to be completely legal.

● Ford, Lola and Rondeau runners in the 1983 WCM will almost certainly use a turbocharged version of the Cosworth DFL engine. This, we hear, will give 700bhp for racing — and a great deal more than that for qualifying . . .

● Osella are still hoping to run a car for Bruno Giacomelli in this year's World Championship. Their new car, we understand, has been designed by Tony Southgate . . .

● Sir Clive Bossom, who has held the position of Chairman of the RAC Motor Sports Association Ltd since 1978, has retired. His successor will be Michael Southcombe, who is currently a Vice Chairman of the RAC British Motor Sports Council and has been involved in motor sport administration for many years.

● If you ever use those handy binders produced by Easibind Ltd, you will be interested to note the company will be moving on March 1 to new premises at 42 Hoxton Square, London N1 6NS.

● A 75mins documentary about the Aston Martin Nimrod's first season is to be shown on BBC television, on a date yet to be fixed. The film followed the two teams — the works effort and the Pace Petroleum supported private car — during preparations for Le Mans.

● During the week of the Monte Carlo Rally, many of the boffins of the motor industry will be attending a conference

called Auto Technologies Monte Carlo '83. There will be several lectures of interest to those involved in motor racing during the three days of the conference: January 24 — *Taking part in competition with high-performance carburetors*, and *From competition to quantity production: the development of a high-performance Macpherson stay-rod*. January 25 — *Use of water/petrol emulsions on Formula 1 cars*. January 26 — *Twenty years of competition: a springboard for the design of future economical vehicles*. Details are available from Autotechnologies Technoexpo, 8 rue de la Michodière, 75002 Paris, France.

● No, so far as anyone knows, John Watson has *still* not re-signed for Marlboro McLaren International for 1983.

● The Tyrrell team is likely to test with Bruno Giacomelli and Corrado Fabi in the near future. Danny Sullivan, with money available from Garvin Brown, also has his hopes . . .

● Although Bobby Unser has decided to retire from racing, he will continue to test for the Patrick Racing Team, and is due to do some work on the new Wildcat Mk9 at Phoenix at the end of this week.

## CHRISTMAS QUIZ

If you fancied the free trip to the Monaco Grand Prix which awaits the winner of the Christmas Quiz published on page 12 of the issue of December 23/30 1982, you may have run into one small problem. Owing to a typographical error, one of the clues was unfortunately omitted from the crossword so meticulously compiled by Quentin Spurring. The missing clue, for 27 across, is:

Ah! — to be a pre-war voiturette (3)

Now you can complete the crossword, cut out the coupon, sit back and dream of sunny days in Monaco. The closing date for the competition has been extended to January 14, 1983.

## British is best

The award presented annually by the Formula One Constructors' Association for the best World Championship Grand Prix has been won by Brands Hatch. AUTOSPORT echoes this recognition from FOCA by congratulating the thousands of people responsible for the organisation of the British Grand Prix.

John Webb, Managing Director of Motor Circuit Developments, and his wife, Angela, were presented with the award, a solid silver representation weighing 20lbs, of a futuristic racing car by President Jean-Marie Balestre at the FISA Prizegiving in Paris before Christmas. They represented, of course, a huge organisational team: the RAC Motor Sports Association, the 70 strong staff at Brands Hatch, and a small army of marshals and officials. All can be rightly proud of the part they played in staging what was widely regarded as the best Grand Prix of the year.

The award will also be a considerable fillip to British motor racing, and one which recognises

what we have always held to be true: that no one organises motor racing better than the British. After the farcical decision to present the award for 1981 to the organisers of the Caesars Palace Grand Prix at Las Vegas, it now seems that for



1982 the honour has found a worthy home.

With six supporting races, a remarkable lunchtime air display which included a fly-past by a British Airways Concorde and — don't forget — a Grand Prix thrown in, it was a memorable weekend. Indeed, it was this show aspect which made sure the British Grand Prix was the best racing occasion of the year, and one where the spectators probably had the best value for money.

In a year of generally declining attendances at all sporting events, motor racing did not escape, with the exception of our Grand Prix. With a crowd of around 120,000 people over the three days, Brands Hatch was actually able to report an increase over previous years.

As the number of Grands Prix outside their European spiritual home increases, it is refreshing to know that the British can still do its best. We know that Silverstone, who in 1977 won the last award to come to Britain, will produce just as good a show in 1983.

## Correspondence

the Editor is not bound to agree with readers' opinions

### Un-British

I was disgusted to read in AUTOSPORT (*Special Stage*, December 23/30, 1982) that the two works Audis which are to be run from a British base in the British RAC Open Championship in 1983 will not be driven by Britons. Instead, we patriotic enthusiasts will have to put up with a Swede and a German running away with the best rallying events in the country.

Only recently, the RAC released details of their new scheme for the Swedish Rally, which should help our young drivers. But why shouldn't a works team based in this country, and managed by British personnel, employ people of the calibre of Tony Pond, Russell Brookes or Terry Kaby? There is no question about their ability, and they all deserve a full season with a works team.

Without help from teams in this country, we shall never have really good rally drivers. Can I suggest that the British public ignore the German cars in the same way that the British-based Audi team has ignored its own drivers? I don't suppose the message will sink in — after all, what does the mere spectator matter? — but it might just have an effect.

NORWICH

JOHN NICHOLSON

### No patriotism

We were appalled to learn that Volkswagen-Audi Great Britain are to employ foreign drivers for both their cars in the 1983 British Rally Championship.

To our knowledge every other Audi National sales company has employed a national driver for its rally team — USA and John Buffum; Italy and Michele Cinotto; Austria and Franz Wittman; Sweden and Stig Blomqvist; Germany and Harald Demuth.

As this decision so grates against our patriotism, it must also be commercially questionable. Every retail organisation must try to identify with its market, especially when that organisation is an importer.

If this is all the support Volkswagen-Audi (GB) can give Great Britain and British drivers, we trust that potential customers will think carefully before buying cars from a company that gives us so little.

DILYS ROGERS  
Committee

International Rally Drivers Club

### Help the clubman

I write to support Fred Henderson's recent letter proposing restrictions for national rallying. I wrote to AUTOSPORT in similar vein some months ago, proposing a structured approach based on capacity classes for various levels of championship.

Everybody I have spoken to since that letter appeared has agreed with the views expressed but nobody seems to be prepared to make the bold decisions which Fred quite rightly says will have to be made. The RACMSA are to be congratulated in slanting the Shell/AUTOSPORT series towards Group A but this does not go far enough.

With people now talking about 200+ bhp Group A cars we should be thinking along much more radical lines either for tyre restrictions or a nice simple rule like front wheel drive only for rallies. It is not as daft as it sounds!

These restrictions together with a more positive attitude by organisers will ensure that there is a healthy base for rallying in this country. If nothing is done we will end up with a series of ralliesprints for the chosen few.

After the usual crop of letters from spectators complaining about the RAC I must complain about spectators. The sheer volume of litter left in the north east had to be seen to be believed. It is getting very close to the point in Kielder where the Commission are going to ask why they should put up with rallying?

With the road damage from powerful cars, unauthorised access by spectators, chase cars and now litter, has anyone any suggestions other than the usual band of enthusiasts (particular thanks to Mike Sayer) who clear up the mess and man the stages? Come on you spectators — play the game or you might not have anything to watch shortly.

MIDDLESBROUGH

DAVID HOLLIDAY

### Movie muddle

May I point out an error in your feature about motor racing movies (December 23/30, 1982)? Scott Stoddard (played by Brian Bedford) did not go into the harbour — he hit the wall — and the accident was not fatal. It was Peter Aron (played by James Garner) who went into the water, and his accident was not fatal either.

Your article also left out an important motor racing film which was successful at the box office: *A Man And*

*A Woman*, in which Jean-Louis Trintignant did the driving.

WOOTTON, NORTHANTS

EDMCDONOUGH

### Out of their depth

Reading the 'Who goes where?' items in AUTOSPORT over recent weeks, it is beginning to seem that for 1983 we are going to have even more rich or highly sponsored no hopers and unknowns in what is supposed to be the pinnacle of our sport.

Let's be honest, with the exception of a handful of drivers, the rest of the grid in 1982 Grands Prix were at best mediocre and some just shouldn't have been there. Can I, therefore, make two suggestions?

First, the FISA should increase the requirements for a super licence so we don't have the situation where drivers can step straight out of a Formula 3 car into a 600bhp F1 machine.

Secondly, is it not possible, through FISA and the national sporting bodies, to start a process by means of which potential sponsors could be brought into contact with suitably experienced and capable drivers? This should help keep sponsors in the sport instead of their pulling out disillusioned after their ex-F3 'star' spent most of the year failing to qualify. I can imagine that such an idea would be popular with team managers, as they would save money in their chassis re-building departments.

Not only would these ideas mean grids full of top drivers, and better racing, but, even more importantly, it would lead to safer racing, particularly as F1 cars are going to be far more difficult to drive.

JAKARTA, INDONESIA

P. C. MCMASTER

### Colin Chapman

It was with great sadness that I learned of the death of Colin Chapman. He will be missed by all racing fans throughout the world.

A new Lotus car, be it F1 or roadgoing, was always worth waiting for because you always knew it would be something special. He was a leader in his field, a man who could be depended on to be one step ahead of everyone else.

To his wife and all his colleagues at John Player Team Lotus and Lotus cars, I send my condolences, and hope they will carry on all Colin's good work.

SUTTON COLDFIELD  
W. MIDLANDS

MJSMITH

## A year to forget

The 1982 season will go down in motor racing folk-lore as a year which everyone will wish to forget.

From the drivers' strike at Kyalami, FOCA's withdrawal from Imola, to the ridiculous haggling as to whether Keke Rosberg is a deserving champion, through the death of the brilliant Gilles Villeneuve, the death of Riccardo Paletti, the Mass/Baldi accident, to Didier Pironi's dreadful crash. All of these will have served to sadden the hearts of all racing fans, but now comes news of the death of one of racing's greatest innovators.

Some of Colin Chapman's cars were immensely successful, others less so, but all were the product of a brilliant mind. His adaptability kept Lotus at the forefront of racing for 25 years, and only Ferrari's record stands comparison with his.

He would always bicker about rule changes, usually because there was an attempt to nullify another Chapman master-stroke, but the fans always knew that sooner or later a Lotus would appear which would be built within the rules, but would be far in advance of its competitors.

We fans can only hope that the design of the 1983 car had sufficiently progressed at the time of his death to allow it to show the ingenuity of the man, share the pedigree of its forerunners, and be a fitting tribute to a true 'racer'.

SWANSEA

ANDREW BOYD

## Americanism

We now find ourselves in the unenviable position of having five North American Grands Prix in one season with only one of these being on a recognised circuit.

First was Long Beach and then recently Detroit, but now we even have a round-the-scrappers race in the Big Apple, New York City. The North American season then culminates again in the farcical parking-lot surroundings of Caesars Palace in Las Vegas. When will the Americans' attempt to take-over Grand Prix racing from Europe be complete? Perhaps when we have a Walt Disney Grand Prix in Florida raced round a Mickey Mouse Circuit.

This championship degradation cannot be allowed to continue purely on the financial coast-to-coast TV rights and coverage in the USA on cheap and easy city centre circuits. The greatest worry with the US street circuits is the danger to proper European circuits and the financial consequences involved.

Last season we almost lost the Dutch race at Zandvoort but were very fortunate to have it raced in front of 17,000 spectators due to late advertising and great uncertainty about even staging a race.

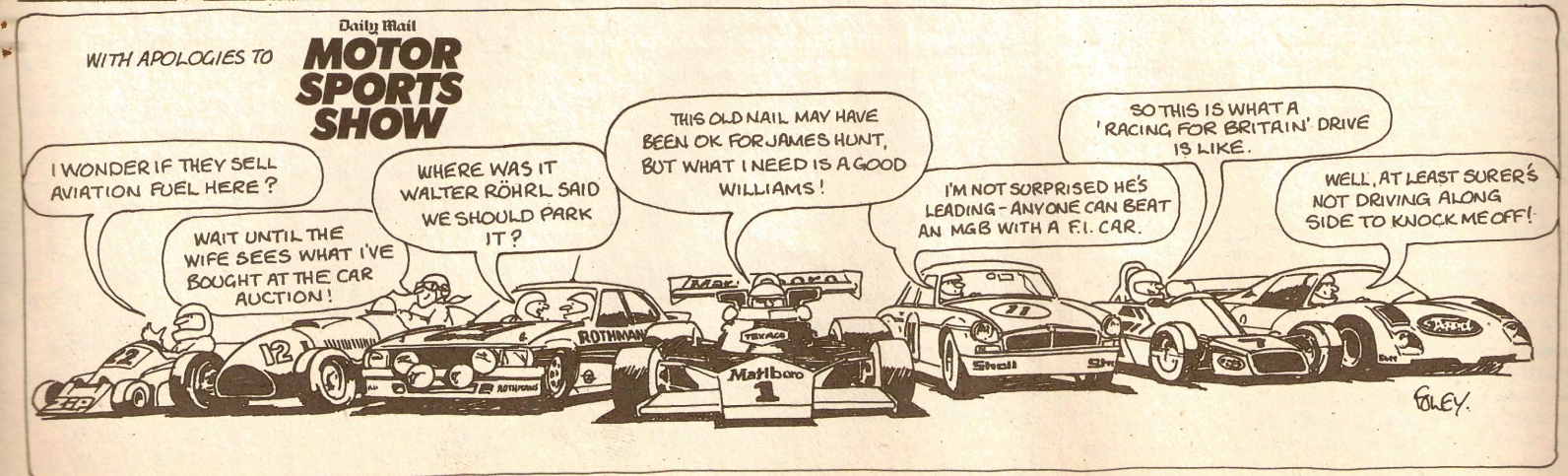
Clearly the writing is on the wall for European circuits. Unless the Americans are harnessed, and an unending list of bankrupt European circuits will emerge very soon!

ABERDEEN

D SCARNEGIE

## Catchpole

by Barry Foley



# 10 Then as now? 25

The bumper New Year issue of AUTOSPORT 10 years ago this week (January 4, 1973) included a comprehensive Ford Yearbook which was crammed full of useful information for any aspiring competition driver wishing to find a way into the sport.

Also taking up a goodly amount of space was our full preview to the International Racing Car Show, which was opened at Olympia by Graham Hill. Centrepiece of the main static display was World Champion Emerson Fittipaldi's John Player Special Lotus 72, which was flanked by an array of exciting machinery that included Shadow and Porsche CanAm cars, Niki Lauda's John Player F2-winning March 722, the successful F3 GRD of Roger Williamson and Fangio's Mercedes-Benz W196.

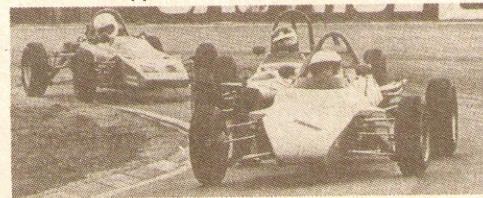
March Engineering's first customer F5000 car was given its debut at the show, while the Bicester company were also featured in an interview of Director Max Mosley by the Deputy Editor Robert Fearnall. Among the wide number of topics covered, Mosley spoke in favour of a 'football-style' transfer system for Formula 1 drivers, in order to stop young drivers learning the F1 ropes with small-time teams prior to signing lucrative contracts with the larger teams.

Our Seasonal Survey of the British Club scene was centered upon Sir Nick Williamson's fifth RAC Hillclimb championship, while Trevor Smith took the BTRDA Autotest title and Jack Pearce both the RAC and BTRDA Trials championships.

Feature race of the BRSCC's Boxing Day race meeting at Brands Hatch was the much talked about Formula Ford Black Flag race, in which Frank Hopper's Royale emerged to take the flag . . . but only after a penultimate lap coming-together with Syd Fox's Hawke. Another conventional FF race saw Richard Morgan's Lotus 61 emerge ahead of Tiff Needell's newer 69, while Mike Chittenden fought his BMW 2002 to a narrow production saloon victory over Gerry Marshall (Firenza) and Tony Dron (Ford Mexico).

*Pit & Paddock* news included . . . Chris Amon's departure from the March F1 team . . . Rondel's line-up to impressive driver line-up . . . Stalemate in talks between Formula 1 entrants and organisers over purses for the European Grand Prix.

*Fox leads Hopper and Morgan at Brands Hatch.*



The Formula 1 seasonal Survey provided the main feature in AUTOSPORT 25 years ago this week (January 3, 1958), looking back on how the great Juan-Manuel Fangio scored his fifth World Championship success. Apart from El Chueco's magnificence with the Maserati team, other highlights of the 1957 season had included Stirling Moss's trio of *Grand Epreuve* victories with the patriotic Vanwall, some plucky drives from Jack Brabham in the diminutive Cooper and most excitingly, Fangio's performance at the Nürburgring, where he shattered the old circuit record in his historic and victorious pursuit of Mike Hawthorn and Peter Collins.

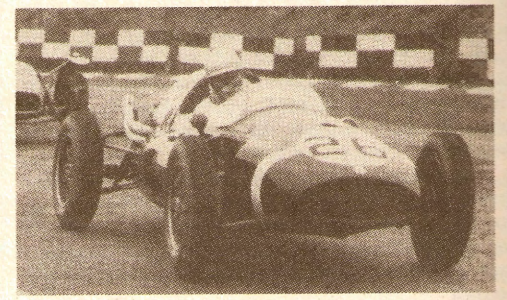
An example of how times change can be found by a look at our reports on two Boxing Day race meetings. The events at Brands Hatch and Mallory Park both attracted large crowds, the former being highlighted by an outright circuit lap record-breaking drive by Jack Brabham and an entertaining chase of Sir Gawaine Baillie's 3.4 Jaguar in the saloon race by AJC Mackay's supercharged Ford Anglia 100E.

Other winners during the day included Graham Hill and Mike Costin in Lotus-Climaxes as well as Tommy Sopwith (3.4 Jaguar), while B. Schofield's Lotus-Bristol won the main race on the Nottingham Sports Car Club's Mallory meeting.

The major news story of the week concerned Alfred Neubauer, racing chief of Mercedes-Benz, who was to retire at the age of 66. 'The portly figure,' we wrote at the time, 'with red and black flag and a pair of stop watches dangling round his neck, has been so much a part of Mercedes-Benz, that the pits will seem strangely equipped without him.' Neubauer, of course, ran the whole racing team and established a reputation that would stand him as 'the greatest of all racing managers'.

Also tucked away in *Sports News* was the fact that Mike Hawthorn, Peter Collins and Luigi Musso had definitely signed to drive for Ferrari in 1958 and that Enzo Ferrari had overseen a reorganisation at Maranello that would see production of the 250 GT Ferrari increased to 20 cars per week.

*Brabham's Cooper on his record-breaking run.*





# Elio de Angelis

PINO ALLIEVI talks to the reserved young star of the Lotus team.

He lives in a villa situated on one of the Roman hills, together with his father, his brothers and sister, and a few servants. Every morning he gets into his tracksuit and goes out running to keep fit. Then he showers, has lunch, and dedicates the afternoons to reading and music. In the evenings he gets together with his friends, at times staying up until the early hours.

At 24 years of age, Elio de Angelis has already clocked up 57 Grands Prix, culminating in a victory, this August, at Zeltweg. Yet during the winter he leads a very quiet, anonymous kind of life.

Every now and then, he takes a trip to Germany where his girlfriend lives, or does a few tests with Lotus. He is not usually to be seen at prizegiving ceremonies, receptions or similar public occasions, being a very private kind of individual. So much so that some people have accused him of being downright anti-social. Introverted or reserved might be apter descriptions, although occasionally he does open up and talk freely, almost as though he were letting off steam rather than describing himself.

He must have had quite a few hang-ups in the past. His colleagues have all at some time or other held his father's wealth against him. He would arouse envy when he arrived at the races aboard a private plane, along with his father and the rest of the family, while their pilot waited behind for the race to end, in order to take them all home again. Whenever the de Angelis clan — who would get together in the evenings around the dining table with a bottle of champagne — chose to appear, pretty girls were never in short supply, and that proved to be a further reason for envy.

Even an apparently tolerant and open-minded set-up like Formula 1 abounds with bitchiness. Elio de Angelis immediately found himself isolated from the crowd when he had reached the top. Although many welcomed his success, sarcasm and envy were rife.

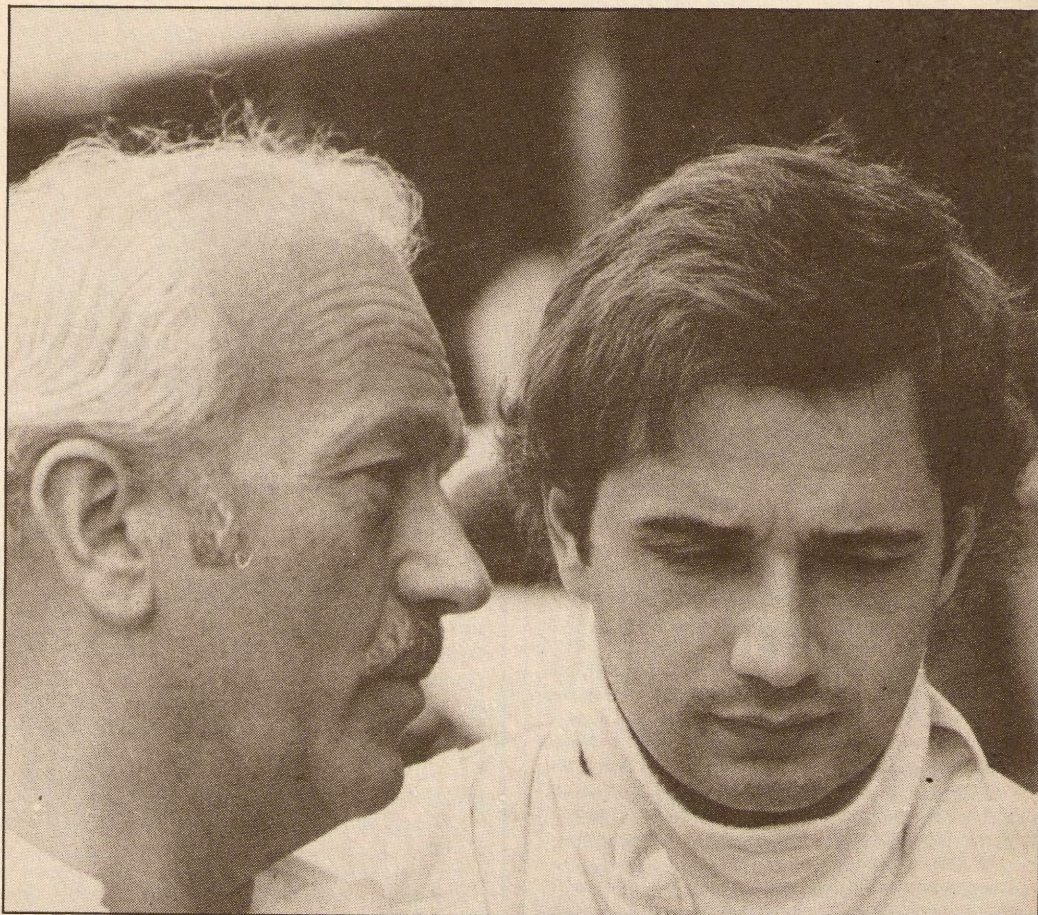
The early results, such as the fourth place obtained in torrential rain at Watkins Glen in 1979, were to shift de Angelis's name from the gossip columns to the sports pages. The subsequent transfer to Lotus, accompanied by a 'dowry' amounting to several hundred thousand pounds, helped make him the epitome of the so-called 'suitcase pilot', always ready to move to the best deal.

It was his loyal and sincere team-mate, Mario Andretti, who put things back in their true perspective: "Elio may well be rich," Andretti said at the beginning of the 1980 season, "but do not dismiss him lightly. Just watch out. He's good, and very soon he'll be among the best."

Andretti is seldom wrong in his judgements. Although to some the victory de Angelis obtained at the Austrian Grand Prix may have come as a surprise, to many others, who had changed their minds about his merits, it merely came as a confirmation of their new opinion.

Most people had forgotten that de Angelis, when he was merely 20, had already tested the Ferrari T3 cars of Villeneuve and Reutemann. However, this collaboration with Maranello was to last for the lengthy duration of the tests. Ferrari already had an eye on Scheckter for 1979. Young de Angelis, although considered promising, would have been too much of an unknown quantity. What was more, as far as Enzo Ferrari was concerned, de Angelis had further drawbacks: being Italian, and a Roman to boot.

"With Ferrari," de Angelis explains, "I had an option which wasn't honoured. Still, not that I ever cherished



Above: The late Colin Chapman was a great influence on the young de Angelis, both personally and professionally. Below: Jubilation after that incredible victory in Austria.



any illusions on that account. I wanted to race in Formula 1 right from the start, but they weren't able to offer me anything, and that's how I wound up with Shadow, a second level team, which nevertheless proved a useful experience for me in that it enabled me to understand the set-up and the men. Now I am able to see Ferrari in a totally different light. A spell with them is important, though by no means vital, if you want to win a Formula 1 Grand Prix.

"Obviously I'd like to be in Arnoux's or Tambay's place. At Misano I envied the applause given to René simply because of the Ferrari horse emblem on his overall. I couldn't help wondering how much more this applause might increase if, for example, Patrese and I also raced for Ferrari. These days, however, I consider myself English, from the car point of view, anyway. An Englishman with an Italian heart!"

Yet de Angelis has had his share of applause too, even if it seems a long time ago now. At Zeltweg there was jubilation, a veritable apotheosis. And those applauding, what is more, were not merely Italian, but also Austrian, German and English. It was a fantastic last lap, with de Angelis beating Keke Rosberg who, six weeks later, was to become World Champion.

"It wasn't until I'd thought about it for a week that I fully realised just what that particular victory meant for me. It was the kind of thing I'd always dreamt of achieving, but more than anything else it proved that I'd made the right choice in life. When you start racing, you never know whether you are going to be good, or whether you are always going to be bottom of the group. Although I was confident about my ability, that in itself is a pretty meaningless feeling if you don't win. My life has changed somewhat since I won; I feel I can afford to rely more on my own judgement."

Thanks also to that success, relations with Colin Chapman were able to return to normal. De Angelis already seemed poised to leave Lotus, and that would have suited quite a few people. Williams was prepared to make a big offer to get him out. And he was about to accept, because he couldn't swallow the fact that Nigel Mansell received more attention in the team than he did.

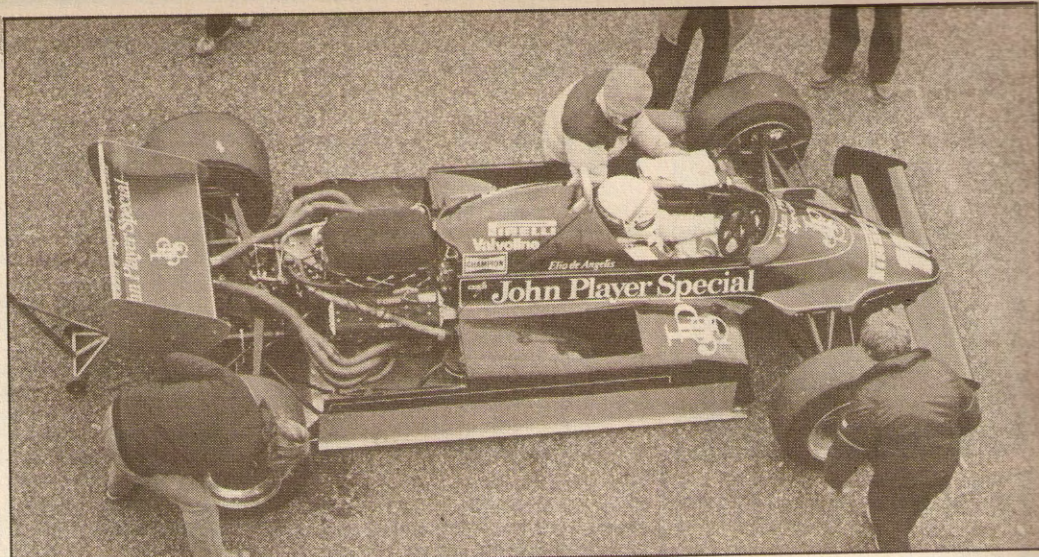
Once, he burst out to us: "Chapman kept telling me that at Lotus there is no such thing as a 'number one' and that he had the utmost confidence in me. Yet at the same time he put two cars on the track with Mansell's number 12 and only one with my number, despite the fact that development work relies much more on me than on Mansell: I really don't get it..."

Perhaps Chapman wanted to make de Angelis understand in a roundabout way that they didn't necessarily owe him anything, and that one has to slog really hard to get to the top. "I slogged a great deal more," de Angelis explained, "than most people seem to realise. Of course it is true that I was able to start my career with my father's money; I don't deny that. Yet that very fact made it all the more important to prove that I could make it because of my own ability. I was underestimated for a very long time.

"Take Giacomelli — he's never had any such problems. And his career, which has traced a steady upward curve right up to Formula 1, has always been followed with a good deal of affectionate interest. People are happy about his success. Still, I am quite satisfied with my present situation. I no longer need to rely on my father's support. I can stand on my own two feet. I earn my own living. And I'm only just 24. How many others of my age could honestly claim the same thing?"

The reference to Giacomelli takes us back to the rivalry between Italian racing drivers: "I've never envied the others. If anything, it has quite unjustly been the other way round. . . . What's the point in saying that you are doing better than Patrese if there are another 10 ahead of him? And, talking of Patrese, there is something he has which I'd like to have too: the conviction of always being the best. And Alboreto? I'd like to be as clever as he is in his dealings with sponsors, with the press and with people in general.

"But the two I admire by far the most are Lauda and Rosberg. Niki is consistently excellent, and Keke shares my own romantic vision of racing; he's not one of *Early days at Lotus with the Essex-sponsored team.*



Testing the revised Lotus in preparation for 1983 and the Renault engine.

those hardened professionals like Cheever, but someone who also knows how to enjoy himself. He smokes, stays up late and drinks if he feels like it."

After the Las Vegas Grand Prix which ended the 1982 season, de Angelis went to Palo Alto with Rosberg to celebrate the title which the latter had just won. Then he travelled around the USA with his girlfriend, Ute. It happens quite a lot that de Angelis makes good use of work transfers in order to get to know the world a little better. This too is a way of keeping in contact with reality: "Some of my colleagues only live for jogging, tennis and cars, I have other interests. I'm not a bad pianist and I compose music. My favourite singer is Stevie Wonder. Who knows, perhaps some time in the future it could become a profession? And I also love fishing. Whenever I'm in Sardinia, I'm out at sea all the time, and have my own secret spot where I catch fish. Even my brothers don't know where they are. Formula 1 is a profession which I enjoy, but I don't intend to stay in it forever. If in my early 30s I still haven't won the title, I'll quit and take up something else."

Meanwhile, the 1983 season could bring about a complete change in the present picture, given that

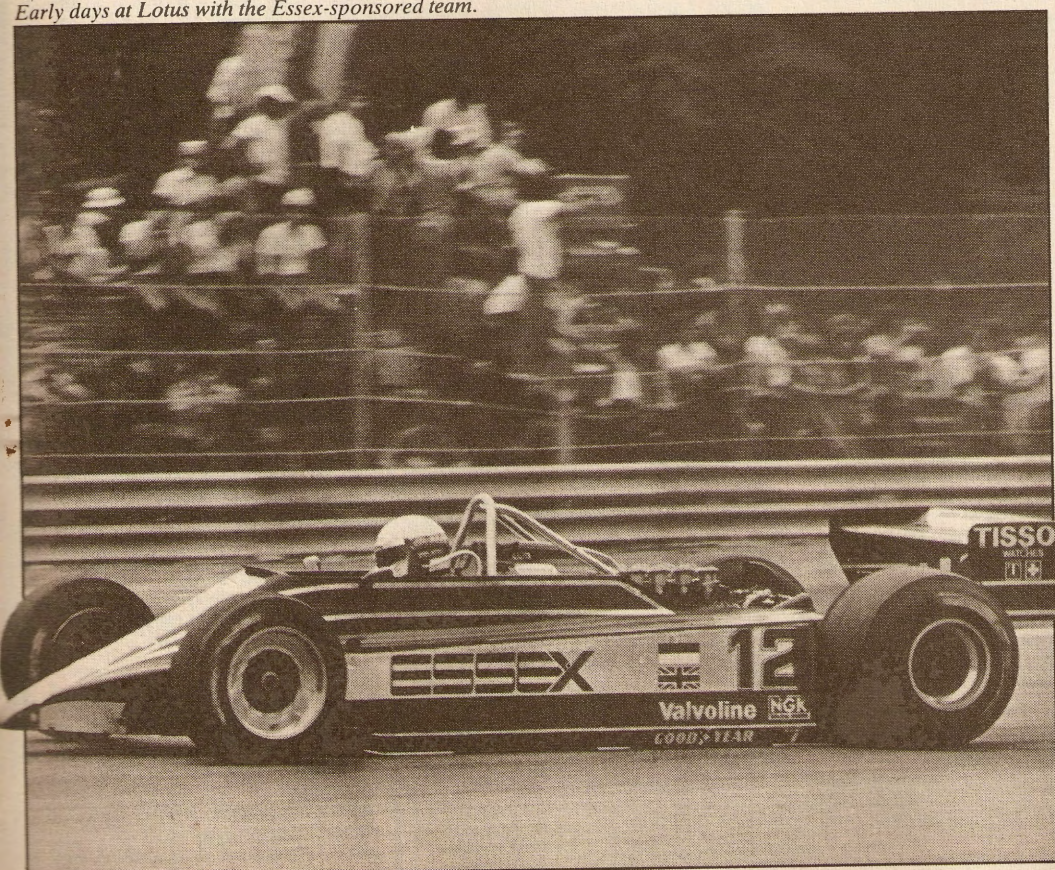
certain modifications will be imposed by the new regulations: "As a racing driver, I belong to the ground-effect generation. Since my Formula 3 days I've driven cars with skirts, which I personally consider very safe. Although it is only my personal opinion, the new flat-bottom F1 cars seem much more dangerous to me, because of the high speeds they are able to reach on the straight and the diminished downforce corners. I already noticed it at Misano, in a Lotus with a Cosworth engine. This month I shall be trying the new Lotus with the Renault turbo engine. The engineers are all optimistic.

Until then, everybody will be trying with cars which FISA has tried to slow down by abolishing skirts and reducing wings to obtain the same times as those registered with the wing cars. But those who worry most about safety are rarely the drivers themselves: "Racing drivers", Elio explains, "nearly always disagree among themselves about anything concerning money and cars. But we do all tend to be rather fatalistic. I got the biggest fright of my life not at the wheel of a racing car, but in the sea, when at Rio de Janeiro I jumped into the water to save Pete Collins, Lotus's technician, from drowning. The current was so strong that I couldn't get back. And all the while I could see the police stopping other volunteers from doing anything, fearing that the tragedy might escalate. Then, by sheer luck, I managed to make it. But every now and then that episode comes back to me and terrorise me. Clearly my number wasn't up then!"

We mentioned earlier on that de Angelis lives with his family, a close-knit clan consisting of his father Giulio, his two brothers aged 23 and 30, and his 17-year-old sister. For him, the family is of paramount importance in life: "We've always been very open and communicative with each other. I used to follow my father when he raced powerboats, and remember that I used to observe him very carefully. It was from him that I learned how to behave after disappointments, then I came to understand the importance of patience. I get on well with my brothers. They are fans who really know the score, because all three of us in fact used to race karts, even though I turned out to be the only one who subsequently pursued a racing career. Marriage? I don't have any plans. I'm too independent, and every so often I need to be alone, even if I frequently grab the first plane to Frankfurt, to see Ute."

For Elio, though, 1982 ended on a very sorrowful note: "I was shattered when I heard of Colin Chapman's death, I owe him so much. Since I joined Lotus, Colin taught me not only how to drive but also how to live. I had absolute trust in him — in fact, I re-signed for Lotus in '83 only because of Colin. For me he 'was' Lotus.

"We had our problems when I first went to Lotus, because we didn't know each other very well. I am basically a very shy person, and I don't think Colin appreciated this at the beginning. Eventually, though we understood each other well, and then our relationship was perfect. I just cannot imagine motor racing without him."





## Rohrl is fined

Walter Rohrl ignored the FISA Annual prize giving before Christmas, and incurred the wrath of President Jean Marie Balestre. A fine of \$10,000 was quickly imposed by the President, ending a fairly traumatic 1982 for the new Champion.

# Superb entry for Monte Carlo

The new era of international rallying is guaranteed an exciting launch on the Monte Carlo Rally, the first round of the 1983 World Rally Championship.

Six works teams have entered the event, and there are three car efforts from Audi, Opel and Lancia. Renault will enter one car, while Mazda are represented, and Nissan will debut the new 240RS with Timo Salonen at the wheel.

With the exception of the Lancia Rally, this is also the first official appearance for the new Group B cars from Opel, Renault, and Audi. In practice this will affect the teams little, although Opel will use the Ascona 400, because of the homologation problems surrounding the Manta 400.

Last year's winner Walter Rohrl will this time head the Italian effort, with Markku Alen, and Jean Claude Andruet also included. Opel have Ari Vatanen, Henri Toivonen, and Guy Frequelin who is expected to receive support from

Rothmans France.

Audi will have Hannu Mikkola, Michele Mouton, and Stig Blomqvist, perhaps the favourite if the conditions are very snowy. Renault have Jean Ragnotti as their only official works entry, but backing the French effort will be Jean Luc Therier, and Bruno Saby.

A total of 317 entries were received by the organising club for the 250 places, starting around Europe, and there will be seven starters from London.

Timo Salonen, is the top seed at number 7, with the Bill Blydenstein Racing-run Datsun 240 RS, followed by Chris Lord (with B seeding) at number 16, accompanied by Kevin Gormley.

Louise Aitken and Ellen Morgan start at 56 with the factory-entered Alfa Sud in Group N trim with the other Alfa Romeo lady, Ruth Hillier at 85. Graham Newby is 134 — in the Reliant Kitten — while John Price has also entered in his Renault 5 Turbo at no 144.

## Brookes rejects offer of 1983 B seeding

Russell Brookes has not been nominated by the RACMSA as a B seeded driver for 1983. He has been left out of the list at at his own request, following the uncertain specification of the Vauxhall Chevette HSR in Group B. Seeded drivers are banned from driving Group 4 machinery in 1983, and so Brookes is leaving his options open.

Included in the list of nominees are Malcolm Wilson, Malcolm Patrick, Chris Lord and Simon Everett, who may

use a Datsun Violet with his Tuborg support this season.

Wilson obviously has a promising year ahead with Ford, details of which will be announced at the Motor Sports Show tomorrow, while the others are all hoping to make a number of European outings during the year. The RAC MSA are actually permitted to nominate five names for the B seed list, but are leaving a vacancy, which will be filled later in the year.

## Balestre impressed by World Championship

At the annual FISA press conference in Paris, Jean Marie Balestre steered clear of any comment on the homologation hassles which currently hinder the sport of rallying. Instead, he confined his attention to events, announcing that early rounds of the 1982 World Rally Championship had been a "great and popular sporting success".

He commented that there were too many rounds included in the European Rally Championship, but with so many countries represented, it represented a considerable problem. Still, Balestre stated that a study was needed because it was still possible for a driver to win the European Championship without ever meeting his opponents.

## Haltone withdraw support

Haltone have withdrawn their support of the Cork 20 Rally, which is traditionally the final round of the Irish Tarmac Championship. It has also been confirmed that Clerk of the Course Leo White will not be responsible for the rally this year.

Both developments will cause prob-

lems for the October rally, although it seems that the future of the event is assured. Following the cancellation of the Galway event, the opening round of the series should be the Circuit of Ireland at Easter, although no official statements have been made concerning the premier Irish championship.

## Peking-Paris is off

The Peking Paris Motoring Challenge has been postponed. "The reasons are many and various" explains the latest communique, although it appears that the China Sports Service Company have not had time to make full preparations for the event.

The British organisers insist that the

Chinese authorities are still willing to back the event however and suggest that 1984 may be a suitable year.

After four years effort however, it seems that the event is no nearer fruition, although support from interested parties is continuing. Whether the professional teams can be quite as patient is less sure.

## Andrews for Cumbria

Andrews Heat for Hire are to sponsor the Tour of Cumbria, the penultimate round of the Shell/AUTOSPORT National Rally Championship. The event has had support from Pirelli for several years, but when the company announced their withdrawal last year, Cumbria MSG worked hard at attracting new support.

"We are obviously delighted with the new association," commented organiser Paul Gilligan, "and both sides hope that it will be a long term deal. That will allow us to get on with producing a first rate rally in the future."

It is also highly likely that the event will adopt an overnight format, something which Cumbria MSG are keen to promote, and the RACMSA want to see back in the National series. The "office hours" rallying which has been a feature of the National scene recently has given drivers no night time experience, vital for international rallying.

"It is dependent on what forests will be available," continued Gilligan, "and there will be some PR problems in the Lake District, but it should be possible to run overnight."

This year's event will take place on Saturday October 1, and only include a short competitive mileage in the Kielder complex.

Andrews see the involvement as an extension of their commitment to rallying. It is ten years since they first backed Russell Brookes.

## Swedish challenge

Following the successful outing on the recent RAC Rally, the Swedish Junior Rally Team will again be entered on the Swedish International Rally in February. The five drivers share SwCr 100,000 and are sure to present our own RACMSA backed youngsters with rather serious opposition.

The Swedish sporting body was so pleased with developments surrounding the new rally team, that it is planning similar efforts in other branches of motor sport.



## Fisher nets Irish prize

Bertie Fisher received the "Northern Ireland Motorsport personality of the year award" on Monday night. It was presented at the Association of NI motor clubs annual prize giving and was made to mark Fisher's highly successful season which included outright victory on the Ulster Rally, and a superb third place on the Manx.

## Pirelli Winter challenge on Monte

The Pirelli Winter Challenge will again take place during the Monte Carlo Rally, allowing competitors to tackle the whole event without studded tyres while chasing a 50,000 Franc first prize.

Tyres allowed include the company's "Winter Range" and Pirelli P6 rubber for the dry sections, of which there were plenty exactly one year ago. The competition is designed to assist the amateur driver, and each starter will receive approximately £140. Subsequently there is a bonus for those completing the Common Run, and even the tenth placed finisher in the competition takes away £500.

Pirelli have also announced details of their 1983 Challenge for other rallies in the French championship and the winner will receive a rally prepared version of the most successful Group N car during the coming year. They will even pay the entry fees for the 1984 events!

## Peugeot on target

Jean Pierre Nicolas will complete development of the new Peugeot Talbot Sport Group B car during 1983. The mid engine turbocharged car will have a 1785cc (2.5 litre with equivalency) engine, and should be seen in public later this year.

This is roughly on-schedule with the programme released by the Peugeot Talbot Sport supremo Jean Todt just one year ago. Progress in France has been "Satisfactory", and Nicolas is obviously looking forward to the development work.

The team had hoped to retain the services of Stig Blomqvist, seen in 1982 with an official Talbot in this country, but the extended Audi Sport contract has obviously ended that association.

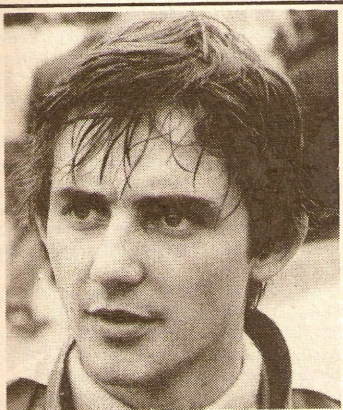
## Compact opener

The Mintex Rally — opening round of the 1983 Rothmans Open Rally Championship — will have a very compact route which never ventures further than 40 miles from its base in York. The event looks to be extremely tough with a Friday start at 10am and the crews tackling 15 hours of competition before a rest halt at 1.00am on Saturday.

The cars re-start again at 5.00am for a seven hour run before the finish at mid-day on Saturday. In total there will be 49 stages in 240 miles and the organisers, De Lacy MC of Pontefract, promise that there will be no road section of more than three miles.

Post event scrutineering will take place before the crews arrive on the finish ramp and particular attention will be paid to damage incurred on the event, for which the appropriate forms must be completed.

Most of the major teams have expressed their interest in the event which will see the British debut of the new Audi 80 Quattro in the hands of Harald Demuth.



## Busy year for Tilke

Ian Tilke looks set to have a busy year in prospect. He is currently building a Ford Escort Turbo and will retain the Group 4 Escort RS for International events. The Irish Tarmac Series is on the calendar — Tilke finished second on the Haltone Cork Rally last year — with Tony McMahon lending his experience for the International events. No partner has been decided for the Escort series. Although Tilke has shown plenty of potential in recent years, his front wheel drive experience is limited and it will be interesting to see how he performs on the early rounds.

## Spring start for Hong Kong-China Challenge

Since its first announcement, the Hong Kong to Peking Rally has attracted considerable interest, and the organisers have confirmed the event will start on Sunday May 5. Total distance will be about 2,000 miles including some 500 miles of true special stages before the finish in Peking four days later.

"It will not have anything in common with the Safari or the rally raid type of event," explained Jim Porter who has been heavily involved in the planning of the rally. "It will be a rally in the true European sense, and with 25 stages, mostly through the mountainous regions, it will be quite a challenge."

Porter continued to explain that link sections would be timed at a very low average speed, not because of the number of other vehicles but rather the amount of foot traffic.

Wide interest has been reported from many countries, and the Hong Kong AA are delighted with the response and the support from the Chinese authorities.

Further details will be available soon, but the event will cater for Groups 1, 2, 3, 4, A, and B. Phil Taylor of the Hong Kong AA has further information at PC Box 20045, Honnesy Road Post Office Wanchai, Hong Kong.

## Castrol to increase grass roots support

At the RAC Club in Pall Mall recently, Castrol gave their broad plans for 1983. The company has a new corporate identity — Castrol Sport — but it will continue to give support to the grass roots of motor sport.

Gradually over the next month, further details of specific support programmes will be released. An extended list of drivers with Castrol backing is expected and the link with the Audi Sport team looks set to continue for the forthcoming season.

Further support is expected for the drivers who won the team Castrol TV

Times Rally Challenge. During 1982 these young competitors suffered from the company's apparent withdrawal from the public eye.

Event support material will continue to be available to clubs. For 1983, however, clubs will be restricted to two events instead of four although the quantity of material — £50 worth, free of charge — will remain the same.

Castrol plan to support a range of local events during the year and it would also appear that a renewed link with Fram is likely for the Welsh International Rally in May.

## Route completed for New Zealand rally

Details of the proposed route of this year's New Zealand Rally have been completed. The rally will start in Auckland on Saturday June 25 and finish there on the following Tuesday. The route will be approximately 2100kms over half of which will be special stages — 39 in all.

The rally will be divided into three sections. The first, starting at Auckland, will finish at Rotorua. The second is a

loop that travels via Gisborne and the East Cape, before returning to Rotorua. The final leg will take the crews back to Auckland via Taupo and Hamilton.

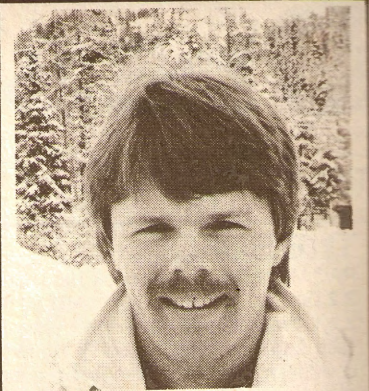
With Motogard's involvement ending with last year's rally, the organisers are still looking for another sponsor. The new organiser, Kevin Lancaster, has received several offers but as yet no firm commitment has been received.

## Cortina V6 for Hudson

Ron Hudson should be tackling the proposed Peking-Paris marathon this year in a 3-litre Cortina V6. The car, a four-door saloon will also feature a six-wheel layout at times. The rear axle has been adapted to accept two pairs of wheels when the going gets rough. Bob Brian Developments will be preparing the car which will have a three-man crew — Hudson, Les Edwards and mechanic Rob Pembroke.

Hudson himself is currently unem-

ployed. The multi-millionaire publisher has sold his company, Children's Books and since November has also ceased to be chairman of the concern. Not that Hudson is too worried about life at present. "Having started out 14 years ago with £50, and worked a 140 hour week for six years I feel that I can justifiably sit back and live on the interest from my earnings. I don't know definitely what I will be doing this year or the car that I will use."



## Eriksson in Britain?

Mikael Eriksson was one of the Swedish Junior team to star on the recent Lombard RAC Rally, and he regards it as one of the toughest events he has ever contested. At one point, the engine had to complete 35 miles without any oil in the sump, although it still survived to win the Group A class. Now he hopes to use the Coupé this year, although still eager to move up to a Quattro at the earliest opportunity. A British appearance (the Welsh?) is a possibility.

## Mercury has the Hansa

Mercury radio, which provided a highly effective Rally HQ control centre on the RAC rally, has attracted a sponsor for 1983. Hansa Lager have put their name to the operation that has frequently used the Fox and Rabbit near Dalby as its field communications centre. The establishment is owned by Camerons Brewery who market the lager.

Mercury's Dick Taylor operated a very efficient system on the RAC and at one stage was able to pass messages directly from Penmachno to the Viking Hotel — a range of around 170 miles. This was first time that a radio control centre has been established in Rally HQ and the success of the operation would appear to have set a precedent for future events.

## Briefly

● The last of the Ford teach-ins supporting the launch of the Escort Turbo Championship takes place in Bristol tonight (Thursday) and at the Motorsports Show this Saturday. VW Motors is the venue in Bristol, at 7pm, while the weekend venue is the Drake Rooms at 7.30pm. The programme includes car preparation, an introduction to turbocharging, and front wheel drive techniques.

● The new Group A Open Rally Championship, Russell Close missed the RAC prizegiving before Christmas, but no-one is sure whether an invitation was even posted. The 1300cc champion, Ian Harrison was not present either, but even if he had appeared there was no award for him to collect.

● South Wales road rally driver Geoff Tremblett has sold the Talbot Sunbeam which he has used for his first season. Although the car gave a 100 per cent finishing record, it has now been swapped for an Ascona 400 under preparation, and he is currently looking for support to contest the *Motoring News* championship this year.

## Weekend Sport

### INTERNATIONAL RALLYING

Date	Venue	Event/Details
Jan 3/9	Austria	Castrol Janner Rally. <i>Opening round of the Euro series (coeff 2). This snow rally usually produces a significant result even if the coefficient lessens its importance.</i>

### NATIONAL RALLYING

Date	Venue	Event/Details
Jan 8/9	Linwood, Scotland.	Moonbeam Rally (SSCC). <i>Second round of the Grange Motors Trophy Championship has 99 miles on public roads. Start: Golden Pheasant Hotel, Linwood at 7.01pm..</i>
Jan 8/10	Midlands.	Empire Trophy Rally (Poachers MC). <i>Final round of the 1982 East Midlands Championship.</i>

# Dressing for safety

TIFF NEEDELL takes a look at the wide range of safety racewear — helmets, suits and boots — available to competitors.

## THE RULE

RAC Motor Sports Yearbook 1983, Competition Regulation L 2.2 on page 83.

**2.2 Drivers.** A driver shall throughout the competition:

**2.2.1.** Wear properly fastened and positioned: (a) A crash helmet which carries a valid Approval label issued by the MSA (see QM 10). Helmets damaged in an accident may have to be returned to the MSA for examination. If the examination shows that the helmet is too badly damaged for further use, it may not be returned. (b) Goggles or visor of splinter-proof material (unless in a closed car with a full-sized windscreen in use), sufficient to protect his eyes. (c) Clothing which shall cover arms, legs and torso up to the neck. The use of gloves and fire resistant clothing is strongly recommended.

**2.2.2.** Refrain from smoking.

**2.2.3.** Keep the mouth clear of anything likely to cause a blockage of the airway in the event of an incident. It is advisable to remove false dentures and to refrain from chewing gum.

**2.2.4.** Be the only person in the car.

**2.2.5.** A driver may drive only one car, and not more than one driver may drive the same car in any one race, unless the SRs specify otherwise.

There above is THE RULE. As usual it provides a few laughs, and as usual it doesn't go far enough. The enforcement of racing clothing has always been a tricky problem, in much the same way as the enforcement of seatbelts on the public roads. We all know it makes sense, but none of us wants to be told to do it . . .

Sadly, few people live through the final test to be able to come back and say, "Look, listen and learn". The worst case I know — worse even than the Niki Lauda accident where Niki's life was saved by his balaclava — is that of Peter Proctor.

On Easter Monday, 1966, a young and very enthusiastic Tiff Needell sat in the Grandstand at St Mary's Corner on the inside of the Goodwood circuit. On the first lap of the saloon car race, Procter's Ford Anglia got out of shape through the preceding Fordwater Corner, and was nudged into a sideways and then end-over-end roll. The car settled on the passenger side and sat motionless for a couple of seconds before exploding into a ball of flame.

As I write the story I can still remember the sickness I felt in my stomach. Peter, hanging 'high-side-up', had to release his belts and fall to the passenger side. The driver's door had jammed and he had to grope through the inferno to find a broken rear window and squeeze himself out. At the time, it felt he was in the fire for several minutes: I presume it was only 20 or 30 seconds but, whatever, Peter suffered massive burns, especially to his unprotected face.

Peter survived his injuries and has even been brave enough to allow his scarred face to be used in racing clothing advertising. But still people just don't seem to get the message. I have never met Peter but I feel that, if we all could meet him, most of us might 'Look, listen and learn'. There would still be many who wouldn't . . .

I tell this story as a preface to the article and because it made a very deep impression on a 14-year-old schoolboy. The rule as it is written must be considered as a very basic minimum requirement, and we must look not only at how we can prepare ourselves for the scrutineers, but also at how we should prepare ourselves for any fire.

I see so many drivers with smart suits and gloves topped with an open face helmet and no balaclava, or with the balaclava pulled down below the nose and mouth because it's a nuisance, or because they can't have a fog without removing the helmet.

The point is, you either go the whole way or you might as well not bother. You'd look pretty stupid on the mortician's slab with a completely uninjured body while the pathologist pronounces death due to flame inhalation — spotless on the outside, and burned to death on the inside.

So, if you've got the money, you buy the best from head to toe. But what is the best?

Crash helmets are all tested to an internationally equivalent standard, so the choice is simpler, although the

question you might ask is by how much a particular helmet might exceed that basic test. Up until I joined Team Ensign and the G-force world of Grand Prix racing, I had always worn a Bell Helmet, first a Star I and then the narrow window Star II. With the Bells I felt I had the experience of a well used helmet and they always felt comfortable and solid. With Grand Prix G-forces, though, the Bell became too heavy for me and I bought

Bell M-1 helmet.



Motor racing is dangerous so it's imperative that you wear the correct gear.

(yes I bought, don't you believe all the giveaway stories) a 'Star Wars' Simpson which I have used for the past two years.

The Simpson is a very comfortable, snug-fitting helmet and their Hydron visors allowed me to sit inside the Nimrod with the visor clipped down, to filter the low Le Mans sun, and still not mist up—I always wear a visor in closed cars to protect my eyes in the event of a fire. Unfortunately I found it impossible in the rain: the water seemed to collect in the contoured face of the helmet and then seep its way onto the inside of the visor.

Some drivers have found their own ways to keep these helmets unmisted, but for the rain I now revert to my Bell II and, with the inside of the visor smeared with greasy hand cleaner and then polished-off, prop it slightly open with a wad of tank tape on the chin of the helmet and never have any problems. For next year I am moving to a new Bell XFM1, because this is now as light as the Simpson and will cater for both wet and dry, and it has the ratchet opening system which will allow for a bit of ventilation inside a closed car.

With overalls, the choice is very much wider, and the comparison of quality and effectiveness much harder to establish. At the moment, there are no British standards, although there is a FISA Homologation test and page 243 of the FIA Yellow Book contains:

**Chapter III: Drivers' Equipment. Article 2—Flame-resistant clothing.** In circuit events or hillclimbs entered on the FIA Calendar, all drivers . . . must wear overalls satisfying either the FIA Standard Test (1975/80) or another Standard examined and approved by the FISA.

Now, in all my international racing, I have never heard a mention of this rule being enforced, and yet it is a good rule.

Bell XFM-1 helmet.



We need to be forced to wear protective clothing, not simply for our own good but for the good of the sport. Deaths bring bad publicity and could bring an end to our sport — as in Switzerland — so it is important to all of us that every driver is reasonably protected.

To my astonishment, research for this article uncovered the fact that few of the British manufacturers had even heard of this test and none of them had submitted any of his suits for the test in order to obtain the necessary FISA Homologation.

Now, the test may not be the definitive test but it does at least give the buyer a guideline. The results give each suit a Homologation Number which could be incorporated on the manufacturer's label and the test result gives three simple statistics: resistance time in the dry test; resistance time in the wet test; and a comment on the Mechanical Resistance of the suit.

A FISA bulletin showing the results of two Simpson suits, without underwear, shows the Triple Layer gives 25.1secs dry; 21.7secs wet; and satisfactory mechanical. The Simpson Quadruple Layer gives 48secs dry; 61.2secs wet; and satisfactory mechanical.

These figures may not mean anything on their own, but they do at least provide the buyer with a comparison and a chance to relate a suit's price to its effectiveness. I'm glad to say my research has caused a stir among the manufacturers, and they have all promised to get their suits tested. It has also caused a stir at the RAC because they did not have a test centre arranged to test Nomex clothing — they are now in the process of arranging one! So, in six months or so, make sure you ask if the suit you are considering buying has passed the FISA Homologation Test, although it is unlikely that any single-layer suit will pass the minimum homologation requirement of exceeding 20secs.

For myself, I wore Les Leston, Jaybrand and Road & Racing Accessories single-layer Nomex suits during my amateur Formula Ford days, and then moved on to Formula One Racewear's Triple Layer Nomex for Formula 3. Now a Triple Layer Nomex Simpson suit is my favourite, but I don't know if it gives me the best protection — I assume it does, because the makers say so. I like the Simpson because it is light and far less bulky than most other suits, and it also looks very smart and is a good fitting, making it comfortable to wear for long periods.

I mention 'looks' for the first time and, whatever the fire resistance, looks must be a factor in choosing a suit. Motor racing is big business now, and sponsorship rules, so it is important to look smart and create a professional appearance. It inspires the team working for you and impresses those you hope will help you in the future. If the driver turns up scruffy and unshaven, then the mechanics might just as well leave the car in the same state.

For gloves, I now wear Simpsons with their full-length leather palms. I used to wear the long gauntlets manufactured by apparently everyone, with the strips of leather up the fingers and a patch on the palm, but I found the feel through the Simpsons to be just that little bit better.

For boots, I have always worn the Westover Triple-layer laminated blue Nomex. They're very comfortable and of minimum external size, which is important when covering my clumsy size eights inside the confined footwell of a single-seater! They will wear out if you pose around the paddock all day in them, because they have very soft leather soles, but the thinness of the sole does give a tremendous feel on the pedals.

I would like to try a pair of the Grand Prix fashionable Adidas boots, but I am put off by the rubber sole which cannot be the best material in the event of fire.

A worthwhile extra to purchase with any boot is a pair of overshoes, or what used to be called galoshes, which are a simple rubber slip-on which keeps your boot dry and protected while walking the muddy paddocks of Britain.

For underwear I have always bought from wherever I bought the suit. I don't think there is much to choose between the various manufacturers but I would recommend those that can be washed, as opposed to the Lined Sport FPT which must be dry cleaned.

For balaclavas I swap from eye-hole style to standard and back again without any real preference as long as they are a tight fit and not prone to falling down at the front.

I think I've covered my opinions and my preferences in more than enough detail, and we can move on to what there is now available and how the prices and values vary.

I said earlier on, that if you've got the money then buy the best. A fire is a fire and, if you doubt it, just pour one gallon of petrol onto a hard surface and throw a match at it, then wade in with your Nomex gear plus Marks & Sparks nylon socks and watch your ankles frizzle-up and melt.

Please remember, never wear any nylon socks or underwear — if you don't have fire clothing, then at least use thick wool or cotton.

I do appreciate, believe me, that many drivers really cannot afford the capital outlay for the best but please at least shop around for a one-layer overall, a full set of underclothing, a pair of fire-resistant boots, gloves and a balaclava. Then wear the outfit for racing, don't change gear ratios in it, keep it clean, add the best helmet you can afford and at least you are providing some protection for your entire body.

To my way of thinking, you can put aside life support systems if you are short of cash, as there really is very little proof of their practicality in a real accident situation, but there have been cases of the helmet pipe catching on catch fences and nearly breaking the driver's neck during an accident.

## Producers and prices

There was no way I was going to track down every overall manufacturer and helmet manufacturer for this article, so I have covered those that made the effort



Above: Bell XFM-1. Below: Needell untagging himself.



Simpson model 16 helmet.

Bell Star helmet.



to enter the excellent *Pace Motor Racing Directory*. Their prices are very much an approximation depending on retailers' discounts, and very much subject to 1983 price increases. Almost every manufacturer is currently in the middle of printing his 1983 catalogue, so again the ranges mentioned may change a little. Obviously, you the buyer will do your own research, and I simply hope that this article will encourage you to think about your own safety, and provide you with guidelines on what is now available.

## Helmets

THE rule for helmets refers to QM 10 (found on page 178 of the 1983 Blue Book) and QM 10 covers the eligible helmet standards in great detail.

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When buying a new helmet to BSI standard BS 2495, it is advisable to ensure that it has a BS 2495.77 with 'INC. AMEND 5' written underneath to prove it is a post April 1981 helmet. For Snell, make sure it is a 1980 sticker, otherwise you will find your helmet ineligible after December, 1984.

Also when buying a British Standard helmet it is advisable to go for one with a red (as opposed to blue) sticker as these helmets have passed the flame-resistant 'flammability' test — again, surprisingly few British manufacturers have bothered to go for this test but, if you the buyer keep asking for it, then things may change.

**BELL HELMETS** — UK agent, Road & Racing Accessories Ltd, 75 Moore Park Road, London SW6 2HH. Telephone 01-736-2881.

The Bell Helmet just has to be the big daddy of them all, the most famous of helmet names. Their new range (and I am only really considering full-face helmets) goes from the Tourstar at around £75 up to the XFM1 at £260 with the New Star and M1 in the middle. These helmets are available at innumerable outlets, apart from Road & Racing, the most obvious being Demon Tweaks in Cheshire and Formula One near Brands Hatch. All Bell helmets are extremely well made and nicely finished but, most important, their shells really are craftsmen made.

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Simpson really came to fame with their light and immensely fashionable 'Starwars' helmet which proved very comfortable and effective. The integral balaclava has disappeared in the new range because, although an excellent idea, the linings were getting just a little too dirty for comfort! The 1983 racing range will consist of the 'semi-Starwars' Model 14 at around £260 and the 'standard' Model 16 some £35 cheaper, both light-weight and very comfortable helmets. Simpson have also produced a Nomex lined open-faced Model 72 aimed specifically at the Rally market. Again Simpson helmets are widely available through many retail outlets.

**GPA INTERNATIONAL** — UK agent TWR Ltd, 1 Station Field Industrial Estate Kidlington, Oxon. Telephone 0865-341010.

The third of the three helmets regularly worn by the majority of Grand Prix drivers — and if you're looking for an AGV 'like Keke Rosberg wears' then I

I mention 'looks' for the first time and, whatever the fire resistance, looks must be a factor in choosing a suit. Motor racing is big business now, and sponsorship rules, so it is important to look smart and create a professional appearance. It inspires the team working for you and impresses those you hope will help you in the future. If the driver turns up scruffy and unshaven, then the mechanics might just as well leave the car in the same state.

For gloves, I now wear Simpsons with their full-length leather palms. I used to wear the long gauntlets manufactured by apparently everyone, with the strips of leather up the fingers and a patch on the palm, but I found the feel through the Simpsons to be just that little bit better.

For boots, I have always worn the Westover Triple-layer laminated blue Nomex. They're very comfortable and of minimum external size, which is important when covering my clumsy size eights inside the confined footwell of a single-seater! They will wear out if you pose around the paddock all day in them, because they have very soft leather soles, but the thinness of the sole does give a tremendous feel on the pedals.

I would like to try a pair of the Grand Prix fashionable Adidas boots, but I am put off by the rubber sole which cannot be the best material in the event of fire.

A worthwhile extra to purchase with any boot is a pair of overshoes, or what used to be called galoshes, which are a simple rubber slip-on which keeps your boot dry and protected while walking the muddy paddocks of Britain.

For underwear I have always bought from wherever I bought the suit. I don't think there is much to choose between the various manufacturers but I would recommend those that can be washed, as opposed to the Lined Sport FPT which must be dry cleaned.

For balaclavas I swap from eye-hole style to standard and back again without any real preference as long as they are a tight fit and not prone to falling down at the front.

I think I've covered my opinions and my preferences in more than enough detail, and we can move on to what there is now available and how the prices and values vary.

I said earlier on, that if you've got the money then buy the best. A fire is a fire and, if you doubt it, just pour *one* gallon of petrol onto a hard surface and throw a match at it, then wade in with your Nomex gear plus Marks & Sparks nylon socks and watch your ankles frizzle-up and melt.

Please remember, never wear any nylon socks or underwear — if you don't have fire clothing, then at least use thick wool or cotton.

I do appreciate, believe me, that many drivers really cannot afford the capital outlay for the best but please at least shop around for a one-layer overall, a full set of underclothing, a pair of fire-resistant boots, gloves and a balaclava. Then wear the outfit for racing, don't change gear ratios in it, keep it clean, add the best helmet you can afford and at least you are providing *some* protection for your entire body.

To my way of thinking, you can put aside life support systems if you are short of cash, as there really is very little proof of their practicality in a real accident situation, but there have been cases of the helmet pipe catching on catch fences and nearly breaking the driver's neck during an accident.

## Producers and prices

There was no way I was going to track down every overall manufacturer and helmet manufacturer for this article, so I have covered those that made the effort



Above: Bell XFM-1. Below: Needell untagging himself.



Simpson model 16 helmet.

Bell Star helmet.



to enter the excellent *Pace Motor Racing Directory*. Their prices are very much an approximation depending on retailers' discounts, and very much subject to 1983 price increases. Almost every manufacturer is currently in the middle of printing his 1983 catalogue, so again the ranges mentioned may change a little. Obviously, you the buyer will do your own research, and I simply hope that this article will encourage you to think about your own safety, and provide you with guidelines on what is now available.

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## Safety racewear

continued

am afraid I must tell you that Keke's is a bell helmet onto which he has placed AGV stickers!

The GPA has been a prominent feature on most French heads, and includes its unique strapless fastening which I cannot recommend or criticise because I've never worn one. The helmet is still awaiting its British Standard test and, until that has been granted, TWR are holding off their first consignment of helmets from France for which they expect a healthy demand and for which you can expect a price tag of around £230 for the competition model.

**GRIFFIN HELMET SALES LIMITED** — Griffin House, Whitehall Road, Halesowen, West Midlands B63 3JR. Telephone 021-503-0703.

The first British made helmet, the Griffin was extremely popular some four or five years ago but has since seen a gentle decline — perhaps proving drivers buy more for fashion than effect. The Griffin helmet remains unchanged and, with prices from £38 up to £75, is still an excellent buy.

**EVEROAK** — Everitt W. Vero & Co Ltd, 11/35 East Dulwich Road, London SE22 8AW. Telephone 01-693-8182.

Another excellent British helmet and a company perhaps more forward-thinking than Griffin, with a Kevlar full-face helmet being introduced in 1983. However, like Griffin, this company goes for a very wide 'window' opening and I have always preferred as small a slit as possible with all those catchfencing tree trunks parked around the modern circuit (another pet hate of mine — they put up Armco to protect drivers from the trees and then they plant trees in front of the Armco!). Everoak are also famous for protecting the heads of the police forces. Prices range from £39 up to £90 for the new Kevlar lightweight Racemaster.

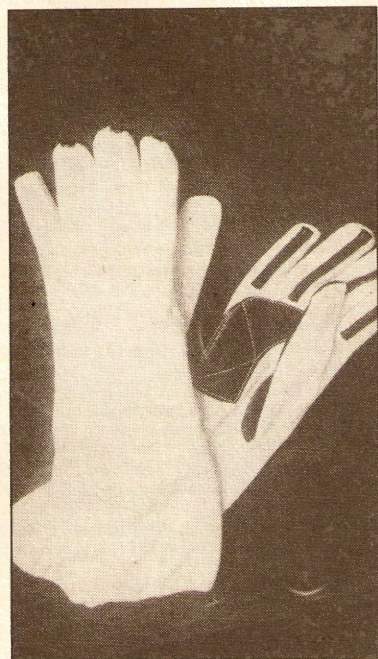
**CENTURION HELMETS** — Mill Lane, Thetford, Norfolk IP24 3DA. Telephone 0842-4266.

Another popular British make, and a company which not only produces a wide range of its own helmets but also a very wide range of Centurion Supervisors for almost any helmet so here's your chance to change that horrible scratched thing you've been peering through for the last couple of years. Prices for racing helmets to BS2495 from £26 up to £70.

**STADIUM LIMITED** — Queensway, Enfield, Middlesex EN3 4SD. Telephone 01-804-4343.



Above: Sponsorship decals are sewn onto a racing overall. Below left: Nomex three layer gauntlets. Below right: The latest Hawk series racesuit.



Another good, solid British make — and please, if you are going to buy a cheaper helmet aimed at the motorcycle market, buy a British one. Stadium have been around for a long time and they offer five helmets in the very competitive 'around £50' market ranging from their Mirage at £37 to the Phoenix at £58.

**TOP TEK or KANGOL** — Top Tek Industries Ltd, 3 Commerce Road, Stranraer, Wigtownshire, Scotland. Telephone 0776 4421.

Top Tek is the new name for the Kangol range after a recent company takeover and, although they are still marketing helmets packaged in Kangol boxes, the name Kangol will soon be entirely superseded by the name Top Tek. All the experience and expertise of Kangol has gone with the new company so you can expect a good quality product and a choice of some seven helmets suitable for motor sport from their Thermoplastic Apache at £30 to the Top Tek Classic at £62.

**SHOEI HELMETS** — UK agent Ferifax (1975) Ltd, Parkland, Halesowen, West Midlands. Telephone 0384-64771.

A fairly typical example of an imported helmet aimed at the British motorcycle market, although with part of the range up to BS2495. If you simply want a cheap 'up to scrutineering standard' helmet, then a visit to any motorcycle dealer will provide you with a wide choice, although you *must* look for that 'Inc Amend 5' Standard. The Shoei helmet is in fact a good quality product with three full-face helmets to choose from, between £50 and £60.

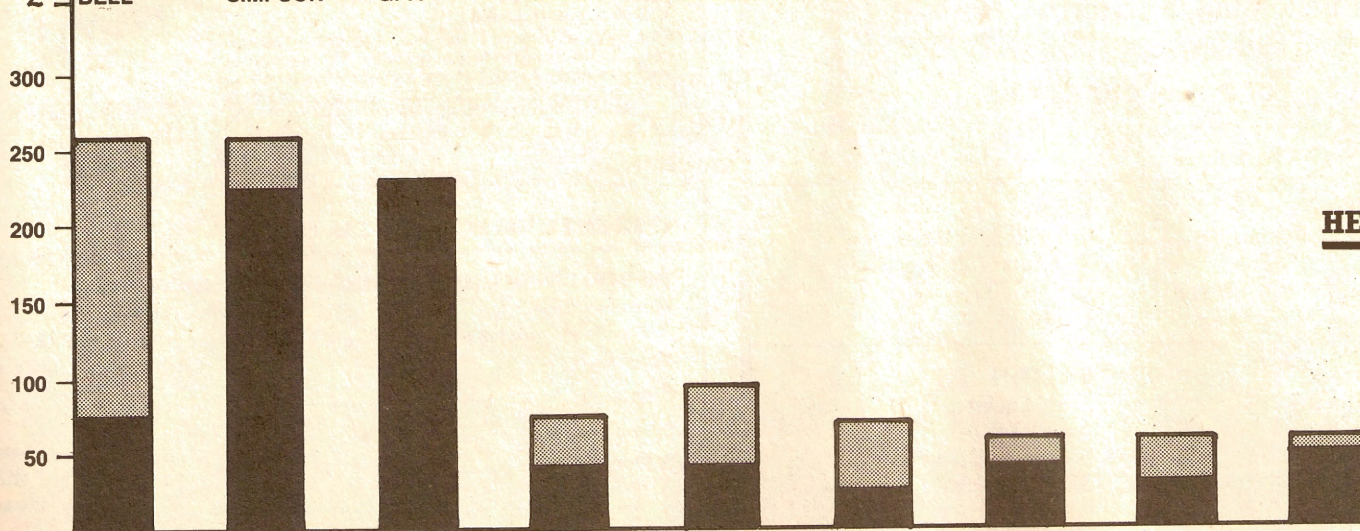
### THE REST

Found in most motorcycle shops and varying greatly in price and quality, from mainly overseas manufacturers, with names like Agordo, AGV, Beori, Jebbs, Kiwi, Nava, Nolan, Owen, and Premier.

### Clothing

The rule we have already covered and I hope this little article has created sufficient waves to ensure that, in six months' time, all overalls on sale will have homologation test results to enable the buyer to do some comparisons. Few of the manufacturers feel it is a good test but, hopefully, my encouraging them to take the test will in turn encourage them to campaign for a more representative test — whatever, hopefully you the buyer will benefit. So, at the moment we must buy what suits our taste, what has a good reputation and what suits our pocket. To my knowledge there are only seven overall manufacturers represented in this country and it is those we shall look at in alphabetical order.

£ BELL SIMPSON GPA GRIFFIN EVEROAK CENTURION STADIUM TOP TEK SHOEI



### HELMETS



# Industry Insight

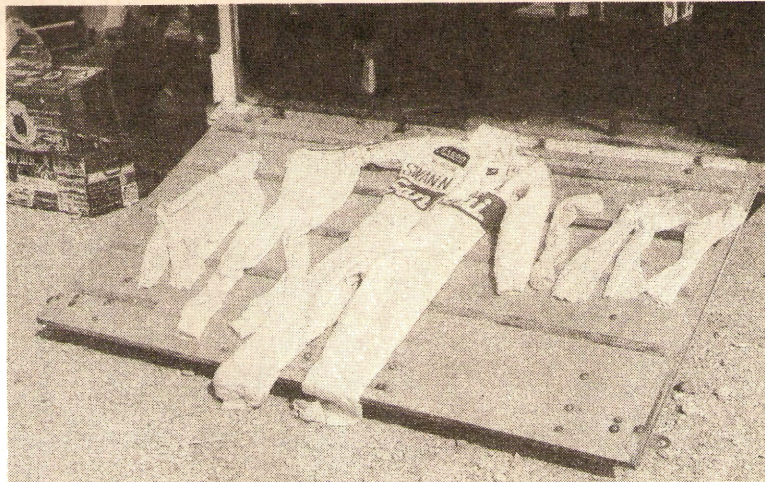
## Safety racewear

continued

**APOLLO RACE & RALLY WEAR LTD, 10/12 Barwick Street, Birmingham B3 2NT. Telephone 021-236-6341.**

Run by regular Chevron racer Alan Eisner, who obviously rusts his own products, Apollo provide what could be called the 'bargain basement' for the overall range. Recently they have been selling their suits at special winter prices, due to rise in the new year, and they then offered a single-layer 'Budget Nomex' suit for £25! Their 'International' cost £50 and then a three layer 'Quilted Nomex' as the top of their range at £150. Good value? Who can tell. At least the clothing is Nomex and some fire resistance is offered at a very reasonable price.

For underwear, that includes balaclava, top, long johns and socks, the Apollo price totals about £35 and their



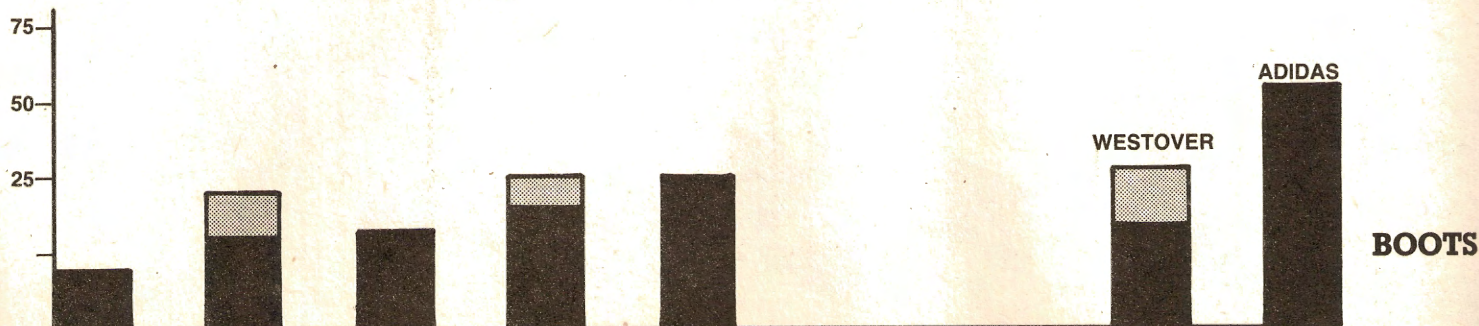
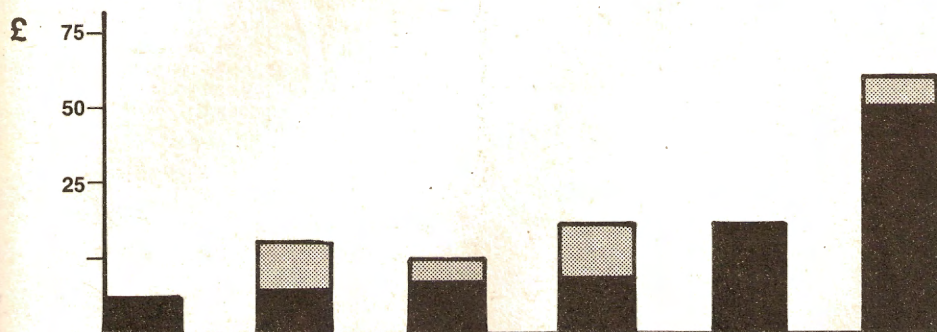
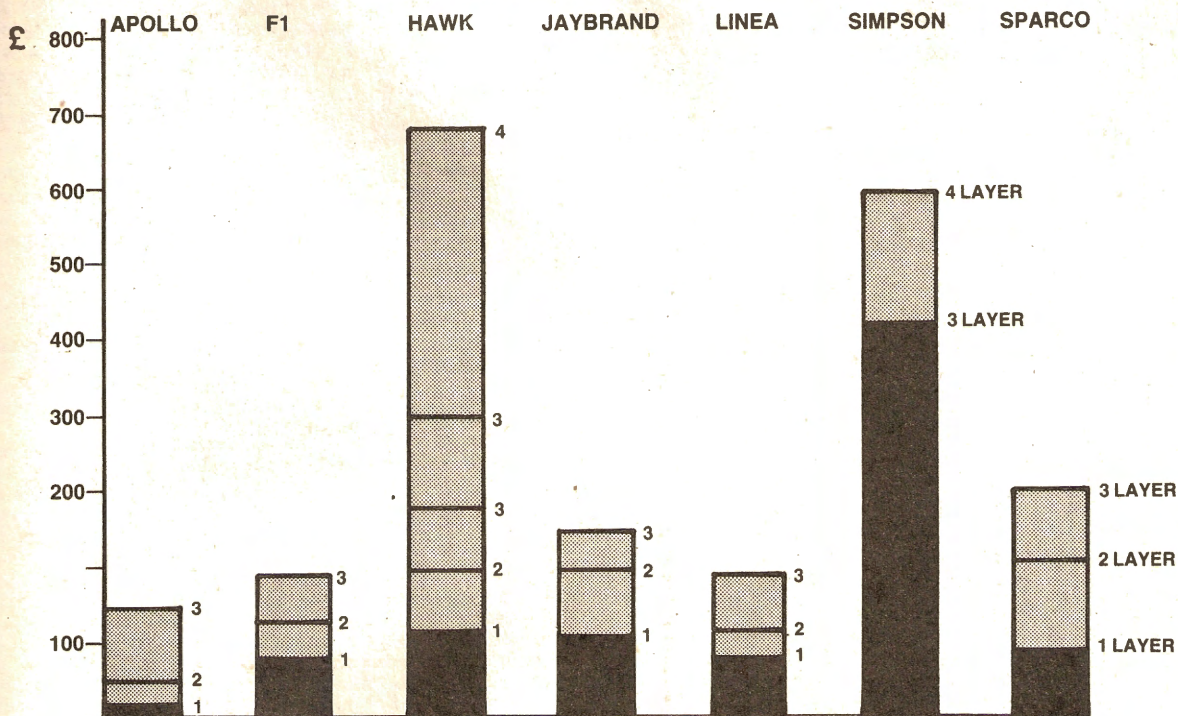
A full set of race wear spread out in the sun to air!

gloves are £12. Apollo also market their own boots with two-layer nomex uppers and leather soles at £20.

**FORMULA ONE RACEWEAR — All Car Equip Ltd, Main Road, West Kingsdown, Sevenoaks, Kent. Telephone 047485-2271.**

A famous name in overalls that has moved from Carnaby Street in the swinging sixties to Portobello Parade — sorry not the Road — in the seventies and now on to Nick Whiting's All Car Equip virtually opposite Brands Hatch, a company that will provide you with almost anything to 'bolt-on' to your motor car or 'put-on' your body. Their one, two and three layers are £75, £130 and £190.

Underwear comes to around £47, gloves at £14 and up to £29, while boots are double-layer Nomex at £30 and triple at £43.



## Safety racewear continued

**HAWK RACEWEAR LTD** — Somercotes Hill, Somercotes, Derbyshire, Telephone 077384-3332.

Run by their very determined managing director John Hughes, Hawk Racewear will only be available direct from Hawk in 1983 in an effort to reduce their prices for their Nomex suits. John Hughes believes very strongly in the quality of his products and is most critical of the FISA test and, I hope, should be a prime mover in ensuring a more representative standard in the future. I get the impression that John would walk into the sun in one of his suits if challenged to it, but I doubt if that will be necessary.

The 1982 prices vary from £125 for single-layer, £199 for double, £275 for triple, £399 for a Nelson Piquet look-alike version and £785 for the four-layer System 4 Racesuit.

Underwear totals some £92 *without* socks which Hawk don't market, gloves from £17 to £25 and the Donington Raceboot with leather uppers and leather soles at around £33.

**JAYBRAND RACEWEAR** — Highbury Street, Lincoln Road, Peterborough PE1 3BH Telephone 0733-68247.

Roger Hawkins of Jaybrand is another keen to see a useful standard of overall testing as he feels there are many new and more effective materials available, but he is unable to persuade the drivers of its worth so he sticks with standard Nomex suits. Jaybrand Racewear is probably the most widely distributed racewear in the country and can be found at most retail outlets. Jaybrand start their range with a Proban suit at £54, Proban being a treated cotton as opposed to the material Nomex, and follow with the single-layer £110, double £195 and triple £250 Nomex suits.

Underwear from £78 to £81 depending on balaclava choice, gloves from £18 up to £35, and leather-soled boots with either Nomex or leather uppers for £40 or £50.

**LINEA SPORT FPT RACEWEAR** — UK agent Gordon Spice Ltd, 12a Central Trading Estate, Staines, Middlesex. Telephone 0784-50221.

Gordon Spice distributes what is probably the only non-Nomex suit in the country and he has remained faithful to the worth of his product for many years. They have pulled a few publicity stunts with arms soaked in petrol burning like a torch but, more importantly, their double-layer overall has been subjected to the FISA test by its Italian manufacturer and does have Homologation approval.

The Linea Sport range certainly al-

Jacques Laffite's GPA helmet.



INTERNATIONAL STANDARDS IDENTIFICATION

**AFNOR**

**BSI**

STANDARD

FLAME RESISTANT

**ONS**

**DS** Dansk Standardiseringsrad  
**SFS** Finlands Standardiseringsforbund  
**SIS** Standardiseringskommissionen i Sverige

**OMK**

**DSSE**

**SE 619**

**SIS**

**SNELL**  
MEMORIAL FOUNDATION  
ESTABLISHED 1977

1975

PUBLISHED 1st NOV. 1982

ways looks very smart and provides an excellent alternative to the Nomex denomination. The single, double and triple layer suits can be found for around £82, £123 and £196 but, and I feel it's a big but, they do have to be dry cleaned. The underwear outfit is around £52 (again *without* socks), gloves at around £35 and boots for £50.

**SIMPSON SPORTS** — UK agent, Road & Racing Accessories Ltd, 75 Moore Park Road, London SW6 2HH. Telephone 01-736-2881.

Only the Phase II Triple Layer and Phase IV Four Layer suits are to be marketed

this year because at the lower levels the Simpson prices would not be competitive. As it is, the triple at £525 and the four at £690 come a comfortable second and third in the price league behind the Hawk System 4, but nevertheless they are very comfortable suits, they look extremely smart and they do wash very well.

As already mentioned, both these suits have been homologated although, as with Linea Sport, this was done in Italy.

Neither Simpson underwear or boots are to be seen next year so, apart from the two overalls, their range is completed by

Some of the footwear available to competitor and lady spectator.



two choices of gloves at £75 and £85. **SPARCO** — UK agent Road & Racing Accessories Ltd, 75 Moore Park Road, London SW6 2HH. Telephone 01-736-2881.

Another Italian made and tested suit (it's amazing that the Italians are more aware of suit Homologation than we are) that is relatively new to our shores, and provides visitors to Road & Racing with their third choice of suit as they are also Jaybrand stockists. They are a range of Nomex single, double and triple layer at £92, £207 and £299.

Only the overalls are marketed by Road & Racing, although the shop itself has a wide range of underclothing.

## BOOTS

Apart from those already mentioned under the various overall manufacturers' headings, there are two makes of racing boot that we have not covered and these are Westover and Adidas.

Both these shoes are distributed by Road & Racing Accessories and both are excellent racing boots. Westover make their Clubman, Speedstar and Triple-Layer Laminated Blue Nomex at £35, £44 and £52 while Adidas top the price list at £81.

## SUMMARY

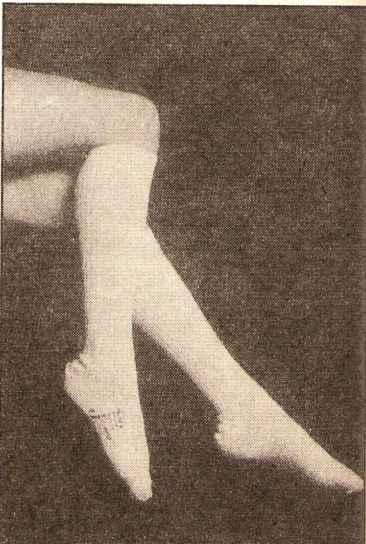
Having covered all that I know to be available in this country, the final choice is obviously yours. I have provided the manufacturers addresses and phone numbers, but you will find their products in a wide variety of retail outlets and at a wide variety of prices. For the retail outlets, the advertising columns of AUTOSPORT will provide you with an excellent guide, but if in doubt call the manufacturers.

The seven manufacturers' triple-layer suits are on offer for £150; £190, £196, £250, 299, £399 and £525. The minimum outlay for complete clothing coverage plus helmet is around £118, maximum some £1313 — so you can't complain that there's a lack of choice!

For that final touch of individual style — assuming the bank manager hasn't frozen your assets — take your helmet to someone like Doug Eyre and have an individual colour scheme, designed by him or yourself, painted on the helmet. Be very careful not to let some mate slap some paint on because, without the manufacturers advice, he could be destroying the strength of the helmet and making it as brittle as an egg shell.

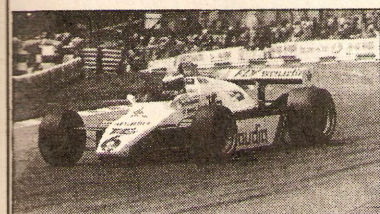
The final line can only be, you pays your money and you takes your choice — but remember, it is *your* body and *your* choice.

Nomex knee length socks.



# GOODWOOD RACING IN 1983

Motor sport tour specialists Goodwood Travel have just published their 1983 brochure containing 52 tours to international race and rally events. This go-ahead company firmly established themselves last season as operators of quality tours and holidays at prices to suit everyone, and their attention to personal service and the desire to offer the best possible value were appreciated by many who travelled with them. Those who book in 1983 can expect to receive the same service.



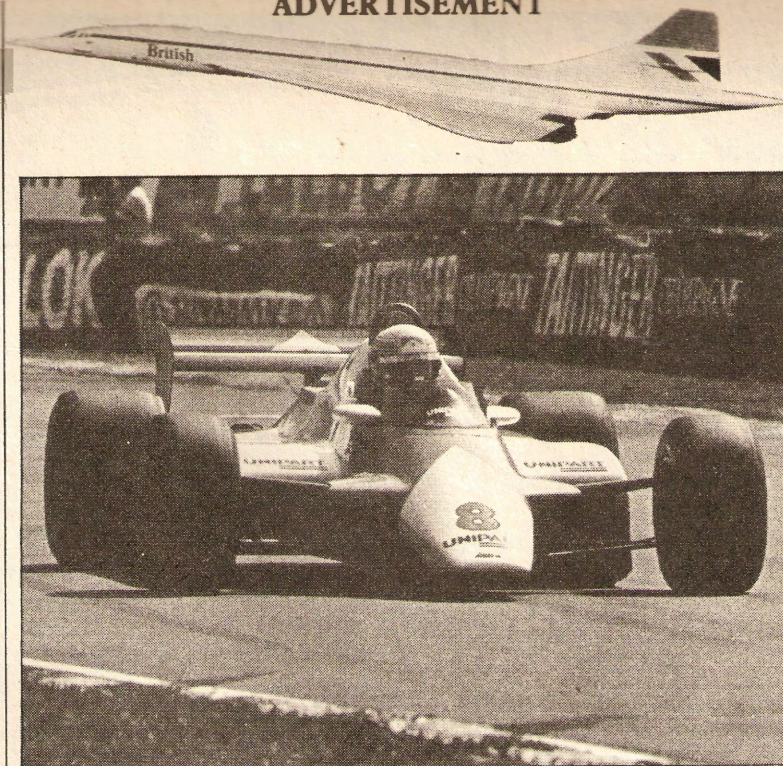
Prices range from £24.00 for the 'Petit Prix' tour to the Belgian Grand Prix to £659 for a luxury nine day holiday staying in Monte Carlo for the Monaco Grand Prix.

The highlight of the programme is their flight by Concorde to the Monaco Grand Prix, and they are repeating the extremely successful Goodwood V.I.P. Club Flights to Le Mans, which they introduced last season. In addition, there are Goodwood Mini-Cruises, Goodwood Jets, an enthusiasts' holiday and a racing school holiday. On the majority of tours Goodwood will be using luxury coaches equipped with video, and, on the longer tours, with W.C. and washroom.

## WHERE? WHEN? HOW MUCH

<b>Grands Prix</b>	
French GP	
April 15	From £89
San Marino	
May 1	From £93
Monaco GP	
May 15	From £93
Belgian GP	
May 22	From £24.00
Swiss GP	
July 10	From £36.95
German GP	
August 7	From £33.00
Austrian GP	
August 14	From £79
Dutch GP	
August 28	From £26.00
Italian GP	
September 11	From £93
<b>Endurance Races</b>	
Nurburgring 1000 kms	
May 29	£89
Le Mans 24 hours	
June 18/19	From £33
Spa 1000 kms	
September 4	From £56
<b>Rallies</b>	
Ypres 24 Hours	
June 24/25	£55
Junsrueck Rally	
July 15/16	£43
Belgian Rallycross	
August 13	£34
Dutch Rallycross	
August 20	
1000 Lakes Rally	
August 26-28	£399
Manx International	
September 15-17	From £93

# ADVERTISEMENT



## FLY CONCORDE TO MONACO

In conjunction with 'Autosport' magazine, Goodwood Travel have organised what must be one of the most sensational Grand Prix tours ever. Flying at twice the speed of sound in the world's fastest passenger aircraft to see the fastest cars and drivers compete on the most glamorous circuit is unique and surely irresistible. It is the opportunity of a lifetime to enjoy an extravaganza of speed and spectacle.

The tour begins with a champagne reception and private check-in at the Heathrow Penta Hotel. Coaches will then take you to Terminal 1 where you board Goodwood's British Airways Concorde.

The flight to Nice is south to the Bay of Biscay, reaching a speed of over 1300 miles an hour at Mach 2, and then eastwards to the Cote d'Azur. Champagne and refreshments will be served in-flight.

On arrival luxury coaches will be waiting to take you along the Riviera coast to Monaco. Race programmes and first-class lunch trays with wine will be given to you here and you are then free to enjoy the race-day atmosphere of the principality before taking your seat for the Grand Prix. Tickets for K Grandstand are included in the price.

At the end of the day's racing the coaches will take you back to Nice Airport for the return Concorde flight during which champagne and refreshments will again be served, and you will be given a special certificate to commemorate your supersonic flight.

As an optional extra, you may book a room at the Heathrow Penta Hotel on the nights before and/or after the tour, and free car parking at the hotel is available to all members of the party. Goodwood Travel's experienced couriers will naturally accompany the tour throughout.

Places are limited to 96 and Goodwood recommend early booking.

## GOODWOOD MINI-CRUISES

To make the usually boring business of travelling more enjoyable, Goodwood feature many mini-cruises. Using the highly successful and luxurious service of Olau-Line from Sheerness to Vlissingen, these will provide comfortable economy or superior cabin accommodation on board the 'Olau Hollandia', launched in 1981, and her brand-new sister ship, 'Olau Britannia'. These 15,000 ton vessels are much more than just ferries. They offer a taste of cruise-liner sophistication unrivalled by any other cross-channel service. All superior cabins have shower and W.C., there's an excellent restaurant, a self-service cafeteria, spacious lounge bar with music for dancing, a disco on 'Olau Britannia', casino, heated pool and sauna, and a duty-free shop, perfumery and supermarket with an extensive choice at really low prices.

Just £33 is all it costs for a tour, for example, to the Belgian Grand Prix, which includes two overnight sailings with all the on-board entertainment, an economy cabin (it's just an extra £6 return for a superior cabin), luxury coach throughout and the services of an experienced courier. This must be the best value in motor sport!

## GOODWOOD VIP CLUB

Goodwood Travel introduced these tours in 1982 to satisfy the needs of those who had little time to spare and wanted to get to the circuit as quickly as possible, but with the maximum comfort. The use of private aircraft to take enthusiasts right to the trackside at Le Mans and the provision of complementary champagne and grandstand tickets for the race proved extremely popular and no fewer than seven Goodwood aircraft made the flight! For 1983, there will be flights from many airports in the British Isles to Le Mans, and in addition, new flights to the Belgian Grand Prix and the Spa 1000 kms. Just another example of the new

and exciting ideas which Goodwood have introduced to the world of motor sport travel.

## HOTEL ACCOMMODATION

To add to the comfort of their travellers Goodwood have included rooms with bath or shower and W.C. in the price of all tours where hotels are used. These facilities are increasingly in demand and you should bear this in mind when comparing prices and calculating your tour price.

## ENTHUSIASTS HOLIDAY

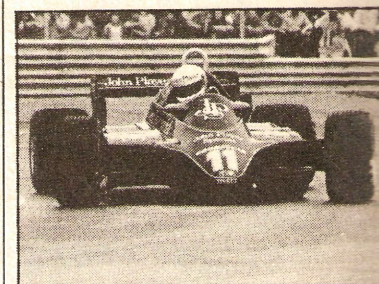
With the German and Austrian Grands Prix only one week apart, Goodwood have taken the opportunity to plan a superb two-week summer holiday for enthusiasts. In addition to the races, there will be a visit to the Mercedes Museum in Stuttgart, visits to Spa and the Nurburgring and stays in the Austrian Alps and on the Rhine. The price of £259 includes mini-cruise sailings on Olau-Line, luxury coach with W.C. and washroom, eleven nights' hotel accommodation in rooms with bath or shower, and half board accommodation in Austria.

## GOODWOOD JETS

Goodwood's tours by air to selected Grands Prix and Rally events in 1982 proved so popular that they are offering flights to many more next season. You can fly to San Marino, Monaco, Belgium, Germany, Austria, Holland and Italy and to the rally of the 1000 Lakes.

## FLY CONCORDE - FREE

Everyone who books a Goodwood tour before January 31 will be asked to enter a free competition for which the prize is the Concorde trip to Monaco. What better reason to book early!



## FREE BROCHURE

Everyone who intends to travel abroad for their racing or rallying in 1983 should send for Goodwood's new 36-page brochure by sending the coupon below to Goodwood Travel Ltd., St. James' House, Castle Street, Canterbury, Kent CT1 2QZ, or by calling Canterbury (0227) 65967 and quoting reference CSC1/83.

Please send me my free copy of the 1983 Goodwood Brochure.

Name .....

Address .....

ATOL 1569

AS/2/83

# Track Test



The elegant setting of Bramham Park was the scene of the Toyota test session.

## A for ability

JOHN TAYLOR assesses a Group A Toyota Corolla

This test all started with a telephone call from Peter Foubister, asking me if I would like to drive John Midgley's Group A Toyota Corolla SR. I must admit that I had accepted before Peter had completed his request. This gave me the opportunity to have a look at what I believe will be the main level of competition vehicle for the 1980s, although some people believe that Group A cars will be too slow, quiet, unexciting to drive, and with little appeal.

So it was that I headed up to Bramham Park, a well-known spectator venue and rally stage. On the only occasion that I had previously been in that lovely park, I had had little time to admire and wonder at the delights and charm of this 17th century ancestral home, property of the Lane-Fox family for over 200 years. We are very grateful that they allow the park to be used by the RAC and other rallies during the year and a visit to the house is well recommended.

Our meeting place was in the stable yard, where I must say that I passed an admiring eye over the owner's string of hunters as they were led out for exercise.

Now — down to business. The car arrived looking immaculate on its trailer behind John's service barge. Soon, mechanic Graham Hargrave had the car unloaded, checked over, fired up and ready for the test. Steve Johnson who co-ordinates Toyota GB Motorsport was on hand to assist.

After a few pictures I decided to take the car out onto the A1 to get a general feel of it and to discuss with John how he came to be a Group A flag-waver. John has been rallying for 10 years and, as proprietor of the family garage selling Toyotas, it seemed logical that he would rally one of these cars. Having taken a 1200cc Toyota Corolla to a class win on the 1972 Scottish Rally, he went on to win the 1300cc class in the 1976 Castrol/AUTOSPORT series. When the new Groups A and B were announced in 1980, John felt that Toyota had a ready-made car for the new formula.

Getting behind the wheel for the first time, the car gave the impression of being bigger than it actually is due to rather high dash squab and the fact that the windscreen seems rather far forward. I could not see both front wings from the driving position and seemed to be peering through the wipers.

I was surprised to find a standard driving seat being used, not in my opinion a good recipe for getting the optimum performance out of the car. The Britax seat belts caused concern as they continually worked loose.



Above: Taylor straps himself into the standard seat. Below: Preparing for the off on the loose surface of the park.



The hand brake lever was also a surprise, as it was not of the fly-off type.

The car, nevertheless, felt solid, with an air of being well-prepared mechanically. On the tarmac it had a nice neutral balance, one being able to provoke power oversteer provided the engine is kept well on the cam. The brakes were quite firm, but required rather a lot of pressure to make them work. They had no vices and felt very effective, the servos being disconnected, but remaining in place as decreed in the regulations.

The engine was remarkably tractable at slow speeds. It was only when the pedal was pressed hard down that one got a big hiccup before the unit came on cam at about 4500rpm, it then pulls strongly up to 7500rpm. John has his engines built by Jim Whitehouse of Arden Conversions, who also build units for Win Percy's all-conquering Tricentrol Group 1 car. The gear lever of the standard overdrive five-speed gearbox came nicely to hand and, although I sometimes selected third when I wanted fifth, the ratios seemed very good.

The standard axle is located by unequal length trailing arms and a panhard rod, there being a choice of two final drive ratios — 5.125 for the forests and a higher 4.875 for tarmac events like the Manx. A Toyota Sportpart limited slip differential is added to help the traction.

The front suspension is by Macpherson strut with a rose jointed tension strut to control fore and aft movement with an anti-roll bar, this being disconnected for the loose. The steering is by a high ratio recirculating ball type which I felt had a nice feel to it.

After a welcome cup of coffee, we ventured out onto the familiar Bramham Park Stage which started at the cattle grid and went west. Traction initially felt very good although one could induce axle tramp in first and second gears. The engine pulled very well and we were soon approaching the very fast left through the white gates at extremely high speed. My only worries were that the front end seemed to be floating a little disconcertingly, particularly as I was not sure how to place the car for the turning-in point.

Nevertheless, a quick stab at the very efficient brakes and we were through and away down the hill to the very fast right hander at the bottom (the one with a large tree trunk on the outside!). I saw 7500rpm in fifth down the hill, a really good turn of speed, a quick heel and toe as I dropped into fourth and controllable power oversteer to get us out of the corner. The car's speed would have embarrassed quite a few of the Group 4 drivers.

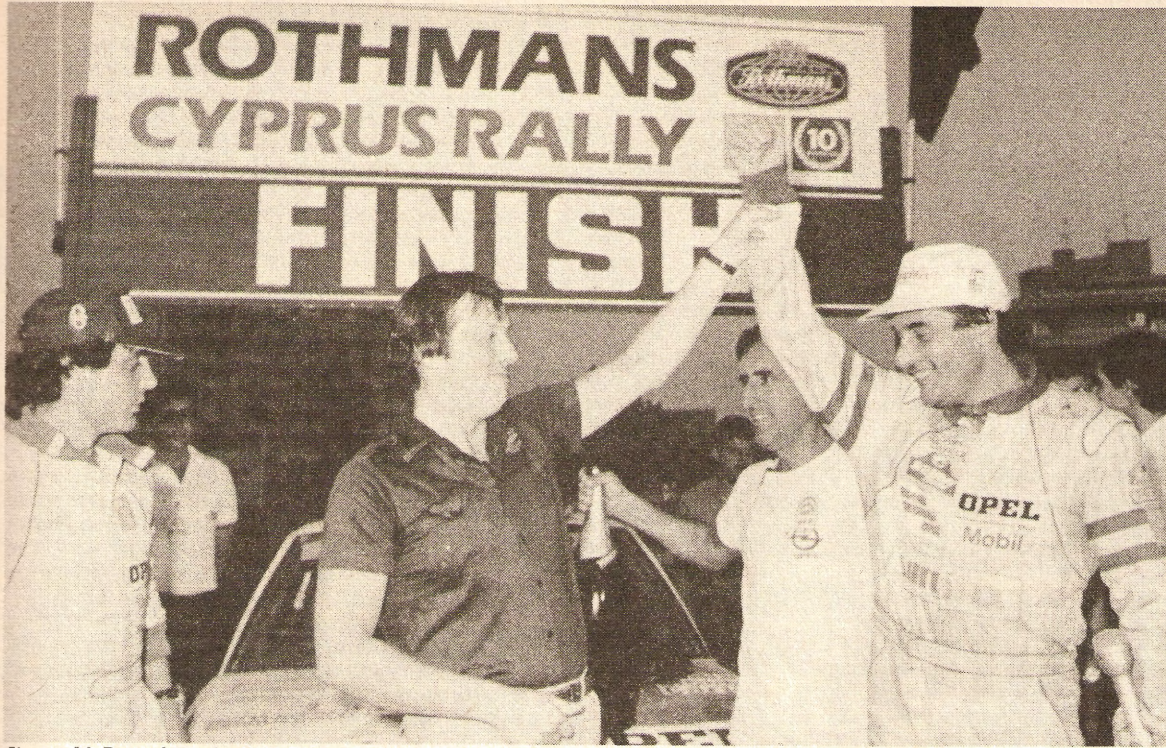
As we approached the gate at the end, I applied the brakes to their full potential and discovered that the stopping power was indeed very impressive! A quick 180 degree turn and we set off back to the other end of the stage, my confidence and joy now even greater. Everything was fine on the fast bits, the suspension riding the pot holes and bumps very nicely until we came to the tricky, tight left and right before the end. I changed down to second and turned in but was greeted by a marked degree of understeer — a condition that every rally driver hates. We scrambled away but not very effectively.

I turned for another go, this time changing down to first in order to use the power to oversteer my way through the corners. It worked as far as feeling safer, but was not as fast as it should be. Another point that I noted was that the car had a tendency to kick to the left as the back end went light over a brow, possibly due to an incorrectly located or adjusted Panhard rod.

John was immediately aware of the problem but, owing to lack of time had been unable to go testing or joining a 'works' session with Per Eklund. I feel that the problem is easily sorted — perhaps by softening the front springs and increasing the rebound rate of the dampers and by doing this I am sure that the tendency for the car to wander on fast sections would be improved. The only development that John had been able to make has been a very effective looking air box for the twin Solex carburetors.

After a few more very brisk runs I can only say that I thoroughly enjoyed the opportunity to spend a day with this car. Anybody who can say that Group A will be boring will be in for a shock. When a superstar such as Per Eklund gets behind the wheel of one of these cars — as the Swede is going to in 1983 — I feel that the results will be quite startling.

# Seasonal Survey



Jimmy McRae salutes the 1982 European Champion 'Tony' Fassina after the Cyprus Rally.

## Fassinating

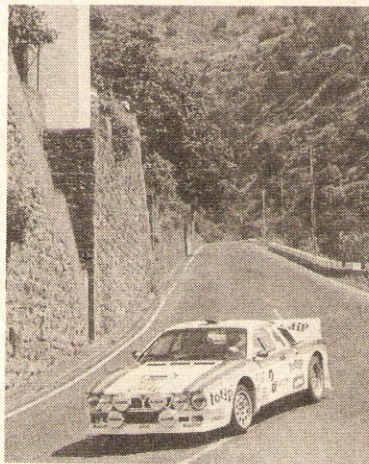
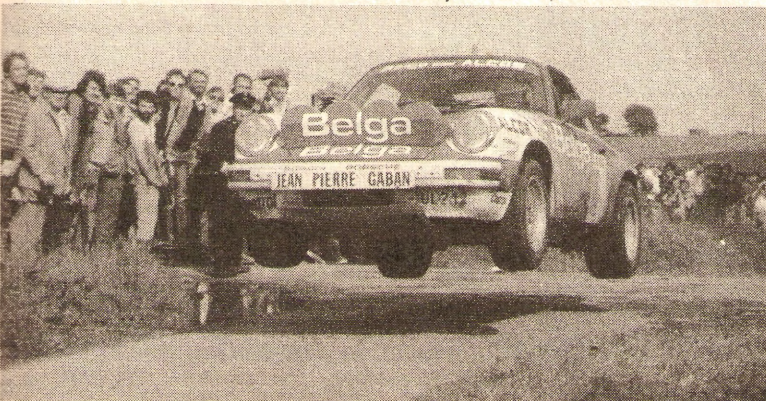
MARTIN HOLMES sums up the European Rally Championship in a year that it almost fell to Britain's Jimmy McRae.

It all went wrong for Scotland's Jimmy McRae in Cyprus. He would be forced to admit he had never seriously expected to be in a position to challenge for the European title, but in Cyprus that chance was very real. For McRae the succession of problems in the eastern Mediterranean were the end of his hopes, the hard-learned lessons from tackling a championship which is not well understood but which is rated as rallying's second most prestigious title. The champion finally turned out to be the Italian, "Tony" Fassina, McRae finishing his most successful year on record in second place while third place went to another Italian, the young Andrea Zanussi.

As customary, drivers come to take a serious interest in their chances in the ECR series if they meet with early success in their national and regional championships. The fight for the Belgian open series between Marc Duez and Guy Colsoul soon found them acquiring important ECR points, while success for Stig Blomqvist in the Nordic series led to wins on the Swedish and Hankiralli — and put him into an early lead in the ECR as well.

Not since Vic Elford had won his group in the European series in 1967 had any British driver come close to winning the series. The ECR is a mystery to outsiders. It becomes seemingly more cumbersome every year as additional rounds are accepted and which the coefficient system of scoring does nothing to simplify. Drivers can only take their best eight scores out of the 47 events in the series, and the coefficient system tells them which events are worth entering.

Marc Duez flying to victory on the 24 Heures d'Ypres.



Debut of the evolution Lancia Rally at the hands of Andrea Zanussi.

The European Championship is governed by a set of unwritten rules in addition to the official regulations laid down by FISA. First rule is that success in the championship only comes to those who start their season early. Although the Swedish had been held one week before with the maximum coefficient of four, this event is actually part of the World Championship and virtually irrelevant to the ECR so the Costa Brava Rally in north-east Spain was as usual the first event to matter. Two A-priority drivers entered in Spain, "Tony" with his Ascona 400 entered by the Italian Jolly Club team — in fact an officially supported GM Italia entry, prepared by Conrero. "Tony" had been Italian Champion the year before, the first time a foreign car had won the national series in that fiercely determined land of car makers. Backing up "Tony" was Andrea Zanussi with his Fiat Abarth 131. McRae

had already started his points chase with the Galway Rally in the Republic of Ireland, but events of coefficient two such as Galway prove of little use by the end of the season. "Tony" won at Costa Brava and Zanussi came third behind the Spaniard, Ortiz.

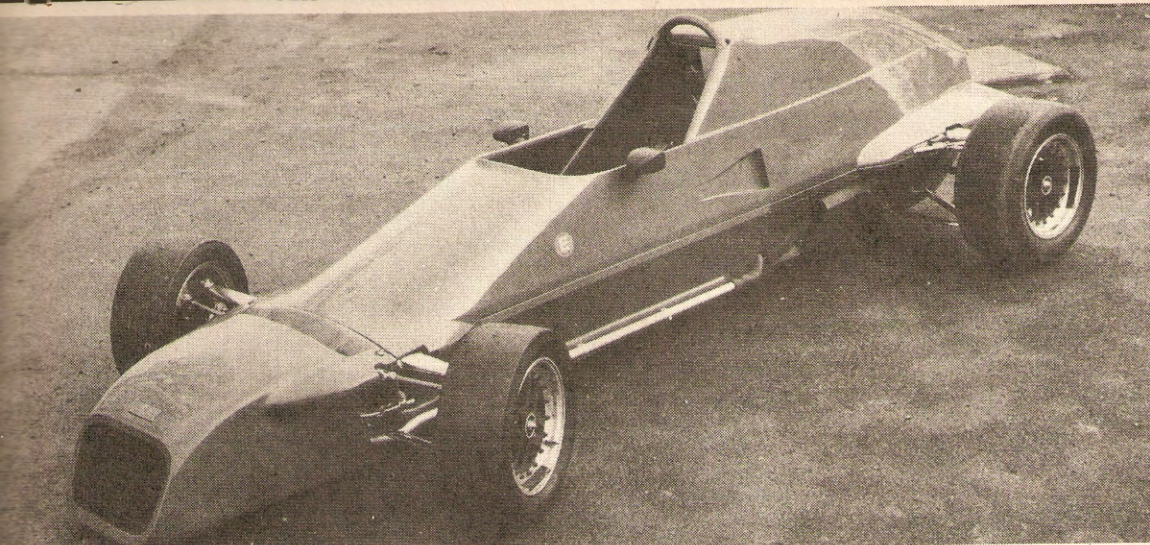
Both McRae and "Tony" came to the ECR series in 1982 as the reigning champions in their own countries, and indeed McRae went on to win in Britain again. "Tony" however proved to be incapable of winning in Italy, whereas McRae later won the Circuit of Ireland and the Manx. "Tony's" lack of form in Italy was balanced by his success in the Iberian peninsula; he went on to win the CS rally in Northern Spain and then the Portuguese rally in Madeira. The next rule was one which the young Italian Zanussi learned the hard way, which is that it is better not to score points at all rather than score bad points. For some time Zanussi was heading the ECR charts, but apart from one impressive victory in Bulgaria at Zlatni Piassatzi all Zanussi's points had come from lesser placings. By mid-season Zanussi had been using his reliable Fiat Abarth 131 to good effect, gaining points. So in mid-season he was persuaded to change cars and drive one of the then-unreliable but faster Lancia Rallies instead. There had been little hope of winning the title when "Tony" was more capable of scoring the points which ultimately counted.

McRae started the season as a back-up driver for the Rothmans Opel Team, his main programme being the defence of his Open title. Soon he found he had fallen into a second trap. Not only had his ECR programme failed to get off the ground early enough (the psychological disadvantage of missing Costa Brava being severe) but he then realised how poorly the British rallies counted in the international calendar. The Italians had seven rounds in the ECR and one on Italian soil run from San Marino. Of these eight, one carried coefficient four and two others coefficient three. The British, whose secret routes always cause irritation among foreign inspectors, had one on the mainland, one in the Isle of Man and two in Ireland. Of these only one carried coefficient three. It was almost as if McRae started off as a loser on the international scene.

The two Italian contenders did not face an easy season. The Conrero team had hardly ever competed outside Italy before, though "Tony" had been to a few foreign events with Jolly Club in his Lancia and Fiat days. Then part way through the season the Italian government suffered a financial fright and limited the possibilities for taking money abroad. Happily Jolly Club chose to run their programme at a time when the Ascona 400 — even in the more highly modified form which the Italians have developed — had become reliable. The ECR is no place to take a car which cannot be easily maintained away from base, as Zanussi soon discovered with the Lancia Rally. He then had to enter military service which even the might of the Fiat team could not reject.

Mathematical calculations play a large part in the development of any ECR season, when considering the effect of the coefficients. Then the ECR establishes the theory of inertia. This states that once you embark on a successful and reliable season you tend to keep going that way. Mathematics also continue to play an important role later in the season as the chances of finishing in the top five places in the final classification are considered. This brings the reward of A-priority status for the following season whereas the champion gets this status for three years. "Tony's" win in Madeira and then McRae's win in Halkidiki were all part of the 'inertia' rule of success, but





The Van Diemen RF83 looks totally different from its predecessors with its beautifully faired-in tail. Surely another winner!

## Van Diemen RF83

The first of Van Diemen International Racing Services's aerodynamic new RF83 FF1600 chassis rolled out of Ralph Firman's Snetterton factory a week before Christmas and the first batch of five cars, to American specification, have been freighted to Florida for the traditional SCCA championship openers at Sebring and West Palm Beach later this month. Essex Racing, Van Diemen's North American importer in Connecticut, took the initial car, Mike Gué and

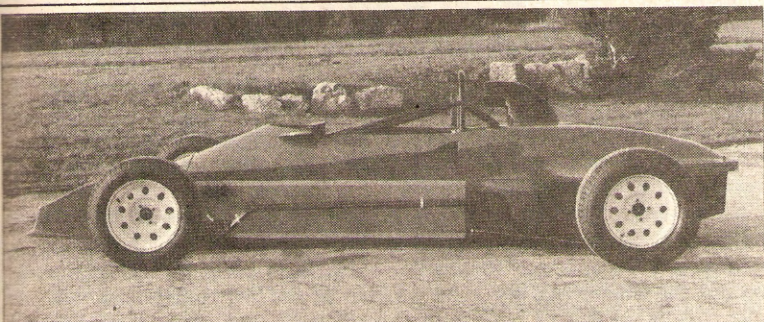
John Timken forwarding it to Texas agent Won Race Place for Kim Campbell to drive.

Dave Baldwin has evolved the 1983 Van Diemen from his classic RF81-2 series of cars. The former Ensign F1 designer has called upon Firman's team's resources and enormous expertise to develop an improved car through intensive season-long testing with works drivers.

Towards the end of the 1982 season

Mauricio Gugelmin's factory car appeared in various track/wheelbase configurations on the Brazilian's successful RAC titlerace, short wheelbase and narrow track having been retained for the RF83.

The most dramatic change to the Van Diemen's specification, however, is the all-enveloping cockpit and tail shrouding for improved air penetration and enhanced straightline speed. Cockpit-adjustable anti-roll bar is new for '83 as are centre-lock wheels for the American-spec car. Less engine the Van Diemen retails at £5,850 plus VAT.



Lola's pencil-slim T642E is a refined version of the successful T640 concept.

## Revised Lola FF1600

A revised version of Lola Cars' highly competitive T640E FF1600 chassis, designated T642E, will carry the Huntingdon *marque's* colours in 1983. Developed from last year's slim, 'high tech' chassis with which Julian Bailey won both the Townsend Thoresen championship and the prestigious Formula Ford Festival (not to mention Mark Peters's Donington series victory or race wins in Europe and the USA) the Lola has been improved in many ways.

Most notable the T642E — the suffix is dropped for American versions — has been made more durable with cast aluminium uprights and beefier suspension detail this year. The braking system, which came in for criticism in 1982, has been uprated at the front with bigger calipers and special discs.

Re-rated springs and anti-roll bars Julian Bailey — leading Lola exponent.



have been incorporated into the package after exhaustive testing while better body panel fitment has also been achieved.

The latest Lola is priced (less engine) at £6,150 plus VAT.

## More money for ASCAR programme

The Southern Mechanical Handling-backed ASCAR Challenge series will benefit from a bigger prize fund this season with £500 on offer at each of the 10 qualifying rounds.

The series will, for the first time, be run in two classes: Super Cars — for full race prepared American V8s and Aston Martins and Modified Cars — for road-going versions.

ASCAR, which showed considerable promise at some meetings last year, will visit six circuits in 1983. Money will be paid to the top six Super Car contenders and the first three Modified competitors at every race.



## Prodsaloon shockers

Monroe shock absorbers are to sponsor the BARC's production saloon car championship for the fourth successive season in 1983 through their British company Monroe Auto Equipment UK Ltd. The championship will again be run in four classes and comprises 16 rounds at eight British circuits.

## A hit for the Nolan brothers?

At his holiday hideaway in the Canary Isles between Christmas and the New Year, Dublin builder Frank Nolan is known to have formulated plans to run an Emerald Isle superteam in 1983.

The effervescent Nolan, an ardent racing supporter, is to sponsor new Van Diemens for FF2000 aces Joey Greenan and John Uprichard and FF1600 versions for David (cousin of Kenny) Acheson and the rapid Guy Cooke. It is said that Tommy Byrne may also drive a Nolan-backed car in '83.

Ralph Firman himself was in on the plot too so rest assured that the top Brits and Brazilians will have a run for their money . . .

## New Kevlar suit Tweaks

Demon Tweaks, the renowned Northern racewear specialists, will be showing a range of driving suits in the revolutionary Kevlar fibre at the Motor Sports Show which opens in London tomorrow (Friday).

The strong, light, flame resistant garments offer exceptional fire protection properties and are priced from £89.50 to £240. Contact Alan Minshaw for full details.



David Button — works Royale seat.

## Buttoned up Royale

David Button, the highly rated young driver from Beaconsfield, completed a deal with Alan Cornock of Royale Racing just before Christmas which will see him handle a factory-prepared RP33M chassis in the major British FF1600 championships this season. Button's car will be run alongside the similar Fine & Humfrey/DJ Electrical Royale of Keith Fine who is maintaining his allegiance with the Riseley *marque* for a third season.

Button, who graduated to FF1600 from karting with an old Merlyn, has driven works entries for the Image and PRS companies over the past couple of years. He first tested the latest Royale in early December, completing a short session at Silverstone and impressing Cornock with his performance in the conditions. It is envisaged that Dave will continue to use Scholar engines in 1983.

# Seasonal Survey



Trevor Smith took the premier club championship, the Esso/BTRDA, with his Escort for the second year in succession.

## Down at the club

AUTOSPORT's club rally reporters have managed to get it all together to bring you this review of the 1982 club rally scene.

While most people's attention during the 1982 season has been focussed on the World series, the British club scene has continued to thrive. As ever, the Esso Scottish Championship has provided some excellent competition but the crown was decided early in the season with Ken Wood taking the TR7 V8 to a convincing title. Hugh Munro became the last Division 2 winner as the whole series goes open for 1983.

Trevor Smith proved that his Esso/BTRDA victory last year was no fluke by taking the title for a second year running. He did not have it all his own way though as John Brown proved an early threat and the old campaigner Fred Henderson along with Clinton Smith provided a late charge.

In Ireland the title fell to John Coyne after a season of mixed quality events, with Russell Brookes finishing second ahead of the fast improving Bertie Fisher. Unfortunately, the Shellsport Welsh series failed to make the impact that it should and for most of the season the crews had little idea of who was in the hunt for major honours. In the end the title fell to Geoff Kitney but the star of the show was probably Richard Gough who produced several fine drives throughout the year. He will surely become a name to watch in the future.

### Esso/BTRDA

Known as the 'other' championship the Esso/BTRDA series continues its successful format. Again eight rounds made up the championship with the best six scores to count and despite the economic recession more than 150 competitors registered for this year's championship.

As has now become customary the Dukeries Rally was the curtain raiser and attracted a very strong entry. This event — gaining in stature every year — has now moved entirely away from any airfields or farm tracks with all competitive mileage in Clipston with the exception of the excellent spectator stage at Clumber Park.

The weather, however, was far from accommodating and made the corners at the end of the long straight extremely treacherous. The most fancied man to take Trevor Smith's title was John Brown who had gone so well at the end of the previous year. Trevor Smith at the half

way point held a 7secs advantage over Reg Mullenger with Brown showing his form in third place. A pep talk had Brown taking the next three fastest times moving him into second place. A further visit to Clumber Park saw him narrow this margin by another 9 secs but unknown to the front runners this stage was later to be cancelled due to an accident which was to have a marked effect on the first place.

Brown continued taking a further two fastest times and on paper arrived at the finish the winner. It was perhaps unfortunate that the championship opener had to end with the moral victor in second place as Smith was declared the winner by just 2 secs with Clumber cancelled, but it had certainly shown that Smith was not going to let go of his title easily, and that Brown would appear to be the man most likely to take it from him.

Moving to the Lake District, the regular circus was joined by the reigning National Champion Bill Dobie who has continued to make this event his own. A

The Century Oils Rally Sport Championship suffered on occasions from rough events, but George Robinson's title was well deserved. This series has always been firmly aimed at the clubman and in that respect it succeeded. Next year's series promises to be of better quality and should prove an excellent starting point for new talent.

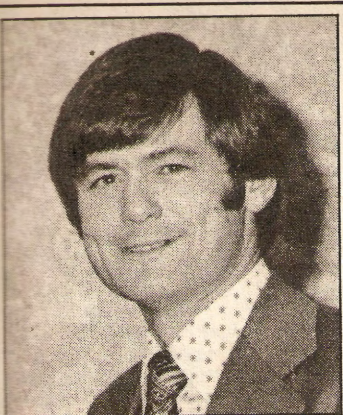
A new sponsor — Malcolm Wilson (Motorsport) Ltd — arrived on the scene in 1982 and added a professional dimension to the ANECC Championship. A good spread of events at all levels gave us a series to enjoy. Willie Richardson ran out the winner but it was all decided on the last round. The Wilcock Insurance Stage Rally Championship was another with a new sponsor and again was to prove a worthwhile venture, Steve Bamber emerged from this series and will no doubt be closely watched during the coming year. On the other hand, Mike Hutchinson walked away with the *Motoring News*/BTRDA Road Rally Championship to such a degree that he failed to appear on several of the final rounds with the title already in the bag.

This season has been a fine example of the sort of sport that is available to the rising stars of British rallying. If the 1983 season can produce such quality and close competition, the future of the sport looks very healthy.

notable non-starter was Malcolm Wilson who did not appear in the Gartrac Escort. Brown again, despite his customary slow start, was quickly on the pace but it was Robin Farrington who was really pushing Dobie and by lunchtime was just 8 secs down with Darryl Weidner achieving an extremely polished performance lying in third place. Trevor Smith was having an unhappy day with punctures and was down the field in seventh place. In the afternoon Brown improved taking a couple of fastest times and Weidner keeping with the pace until a fuel pump failure cost them a great deal of time relegating him to 10th. Dobie held Brown at bay and emerged the victor by a slender 13 secs. Bearing in mind that this was Brown's first visit to the Lake District he had impressed all. Trevor Smith meanwhile finished in third place with Fred Henderson fourth. This now meant that Brown and Smith were joint championship leaders as the championship headed for Wales and the Plains rally.

Following his disappointing run in the Lakes, Trevor Smith, last year's winner was quickly into his stride setting up two fastest times with the next three going to a very determined Jim Brown who was looking for his first national win. The rally was to have four leaders during the day, the first one being Trevor Smith. Unfortunately his co-driver made an uncharacteristic clerical error and booked into a control early, giving them a 2 mins penalty and the lead at half way to the very on-form Darryl Weidner who had taken the lead from Brown when he dropped time as a result of a puncture. Roger Chilman, the eventual winner had moved into second place and was undoubtedly pushing Weidner hard until with just two stages to go he took the lead by just 2 secs with Brown having moved through the field just 9 secs away. While taking two fastest times he only managed to reduce the deficit by 5 secs and although this allowed him to move ahead of Weidner, he again was bridesmaid to Chilman. Trevor Smith was relegated to





**TREVOR SMITH**

Trevor Smith is the competitor's competitor. He is what the championship is all about. In his own words "The championship is for blokes who want to go out and have a good time."

What may surprise some people is that this is Trevor's sixth BTRDA title. Before coming into rallying he was without doubt the country's top autotest exponent.

Between 1972 and 1977 he was the winner of four BTRDA Championships driving a Midget, this sport giving him his most memorable win, an international autotest in Dublin back in 1977. He always wanted to 'Have a go at rallying' and the tool making business he started in 1972 provided the capital in 1977.

Competing on the fringes it was not until 1979 that he bought an ex-works BDA Escort and was rewarded with sixth place in the Gold Star Championship. At the same time he won the BTRDA All Rounders Championship which included rallies, autotests and autocross.

In 1980 he was third before winning the title last year, and retaining it again this year, although after a good start on the first round a couple of indifferent performances had him in a defeatist frame of mind. But championships are all about finishing and when all the leading contenders dropped by the wayside on the fourth round Trevor took the lead and continued to finish every round of the championships giving him 21 finishes out of 24 over the past three years. Next year he is looking to one of the single make championships where everyone starts equal and ability not money is the yardstick of success.

**Esso/BTRDA Rally Championship**

- 1 Trevor Smith (Ford Escort).....69pts;
- 2 Fred Henderson (Vauxhall Chevette) .....63;
- 3 Clinton Smith (Ford Escort) .....63;
- 4 Darryl Weidner (Ford Escort) .....61;
- 5 Dennis Moody (Ford Escort) .....50.

fifth place and would have been the winner if his 2 mins penalty was deducted. **Gavin Cox** won his class for the third time in succession indicating that he was to make that class all his own.

No championship would be complete without a visit to Kielder Forest and so it was to the North East and the Hadrian Centurian Rally for round 4 which was to give the first non Ford Championship win to the evergreen Fred Henderson. John Brown again started favourite running on home territory, while Trevor Smith had changed co-drivers and was out with **Steve Bond** for the first time. Darryl Weidner was also expected to do well following his success on the fourth stages rally. However, it was **Steve Bannister** who moved into a temporary early lead from Brown, but a string of fastest times put Brown into the lead by lunchtime by just 1 sec from Bannister. A gap of 30 secs then separated Weidner, **Clinton Smith** and Fred Henderson who were covered by 3 secs!

Lunchtime also saw **James Sutherland** anxious to score under 25 championship points struggling on despite hitting a boulder that had cut out the ignition, knocked off the exhaust, and punctured a tyre! Brown left the lunchtime halt and took an amazing 42 secs off Bannister on the next two stages. The next stage, however, saw the young charger trying a little too hard on a tightening right hander which he was unable to negotiate, handing the lead to a grateful Bannister.

Despite a cracking gearbox which was consuming vast quantities of oil **Phil** and **Pauline Taylor** were leading for one of their best performances. As the cars arrived at the last stage Bannister held a lead of over 1 min and must be criticised for rolling out of the rally in that stage, this giving victory to Fred Henderson whose knowledge of the Weidner complex had encouraged him to play a waiting game. Clinton Smith was second ahead of namesake Trevor.

Weidner had again proved its unpredictability and claimed its victims. John Brown had the frustration of learning that had he continued after his off he could have won the event as the stage in question was finally cancelled due to a fire, illustrating, that to finish first, first you must finish.

Staying in the North the annual confrontation between the Scottish and BTRDA Championship — both sponsored by Esso — is always sure to attract a good entry both in terms of quantity and quality, and this year's Border Countries Rally was no exception. Punctures on the sometimes damaging and slippery Scottish stages played a vital part in the opening stages with John Brown again having his share of bad luck losing 30 secs on the very first stage. Clinton Smith going one better puncturing both rears.

**Ken Wood** was pulling out a lead over **Ivor Clark** who was giving a most impressive performance in a proper rally car. The BTRDA honours were being kept alive by Trevor Smith and Darryl Weidner. Smith unfortunately lost 15 mins with a loose distributor but credit to the man who surely represents what the championship is all about continued. As Wood and Clark continued their cracking pace the forest was taking its toll. **Donald Heggie** punctured and Trevor Smith dropped a further 3 mins to find himself in 83rd place.

**Trevor Pew** had been improving with every round of the championship and with some good results was lying in third place in the championship. Trying a little too hard he had a bad roll damaging both car and co-driver **Brown Fox** who, while needing hospital treatment, was discharged later in the day.

The Englishmen and the Scotsman had on this occasion been joined by an Irishman **Roy Cathcart**, elder brother to Ian who had proved the family competitiveness by finishing seventh on this side of the water. Darryl Weidner took maximum points ahead of Clinton Smith with **Dennis Moody** in eighth.

With the cancellation of the Halewood due to the footpath problem the next round was the Telford Forest stages which saw John Brown leading the field away in an unfamiliar car as he was having a new car built following his off on Epynt. He had rented a car from CMA, Trevor Prew also appearing in a different car courtesy of T & B who had loaned him their development Mk 3 Escort which gave variety to the top 10 as he was joined by Dennis Moody in a similar car. The event winners started at 13 as a result of a late entry, Moody had by lunchtime shown that his result on the Hadrian was no fluke and was holding a good third place behind **Richard Gough** and rally leader Trevor Smith. Brown, who had had distributor problems ran wide on a right hand bend and failed to negotiate

the left hander that followed, rolling him gently down the bank. As the final batch of stages were run at 30 secs intervals there was always a likelihood of a dust problem affecting the results when Smith dropped 20 secs in somebody's dust-cloud, relegating him to second place behind a grateful Gough. Moody held onto third to strengthen his position and Weidner again had a competitive performance to maintain his championship challenge. The Cestrian which was to have replaced the Hailwood was cancelled due to lack of entries and so the overall championship was decided in favour of Trevor Smith even before the last round. It was therefore encouraging to see almost every regular championship competitor present on the last round, the Track Rod Forest Stages.

Despite their presence it was local star **Yuk Hodgson** taking victory by just 1 sec from Dennis Moody.

**Steve Bannister** was pre-RAC testing and put up fastest on the first stage. Unfortunately an awkward landing over a fast brow brought the car into contact with logs and completely destroyed it, happily with no physical damage to the crew. Sharing a similar fate were the Taylors who were lucky to escape with cuts and bruises when a log smashed through the front bulkhead. **Ron Hudson** made a long awaited appearance in the Quattro and entertained the crowd.

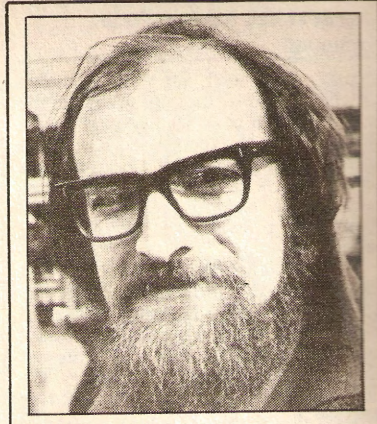
One score that had not been settled was the under 25 award which was to go in favour of James Sutherland when **Willie Richardson** rolled into retirement. New champion Trevor Smith had had an indifferent day but rounded off the event and the championship by taking the fastest time on the very last stage. Smith, like Brown, had had some bad luck during the year but showed that he is still a most competitive driver. John Brown will undoubtedly go on to bigger and better things and probably this year's championship find is James Sutherland who has put in some top 10 finishes with a low powered car and he wins the under 25 award which had no fewer than 18 drivers scoring points.

**CHRIS LORD**

**Tarmac Championship**

The 1982 Tarmac Championship was won by **John Coyne** and **Christie Farrell** in Coyne's Talbot Sunbeam Lotus, the car supported by the factory where Coyne is manager with preparation in the capable hands of Chris Sclater Automotive. At the start of the six event championship it would be fair to say that Coyne would not have been at the top of the list of "Driver most likely to" in most people's reckoning, except for Coyne himself that is.

*John Coyne took the Irish Tarmac Championship.*



**JOHN COYNE**

John Coyne is a 32 year old bachelor, now living in Cork, originally from Dundalk in the Republic of Ireland. When one thinks of Coyne, one thinks of Talbot, early memories of super quick Imps and Sunbeam Stilettoes still vivid. John progressed to Avengers, then to the 2-litre Group 1 variety, winning outright a National stage rally in the car.

He is a past National Champion. His links with the Talbot factory strengthened through the years, and he was very much involved with Talbot Ireland in the development of the Sunbeam as a rally car, the pushrod variety. Talbot Ireland has now more or less withdrawn from the sport, hence John's involvement with Chris Sclater. This quiet spoken and mannered driver, has a very strong engineering background, through university and career, and his very thorough, methodical approach, plus his pleasant manner makes for easy communication on rallies.

**Irish Tarmac Championship**

- 1 John Coyne (Talbot Sunbeam Lotus) .....34pts;
- 2 Russell Brookes (Vauxhall Chevette) .....30;
- 3 Bertie Fisher (Ford Escort) .....27;
- 4 John Price (Renault 5 Turbo) .....24;
- 5 Ger Buckley (Vauxhall Chevette) .....24.

The first round was the BP Galway, an evening and two days of fast tarmac stages in February, employing the loop system of stages repeated two and three times, easy to staff, but giving a big advantage to drivers with local knowledge. The early leader was **Brendan Fagan**, his Chevette HSR even putting **Jimmy McRae** in the Boleyn Cattini Opel Ascona 400 in the shade.

On the Saturday morning Fagan dropped time when he brushed a wall and punctured a tyre, allowing McRae to lead. **John Lyons** and **Bill Moffat** in their Downtown/Primark Escort briefly held



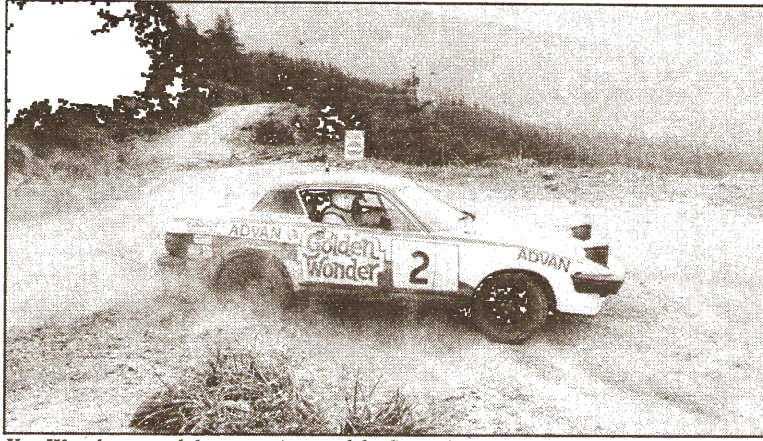
# Seasonal Survey

## Down at the club

continued

second, then went out with a broken clutch, so Lyons, looking good for the season, with a good car, good sponsorship deal and the recognised speed was not to collect points. Also out was another likely candidate for series honours, **Donie Keating**, his deal in the Everclear Chevette HSR sounding promising.

McRae was having to drive so hard that the Ascona was in tatters at the finish, but he held his lead. He then surprised everyone by announcing that he was not to be credited with tarmac points, his sole aim in Galway being to score in the European Championship. That left **Ger Buckley** in the Opel Ireland Ascona 400 with maximum points and **John Coyne**, **Fagan**, **Austin McHale** and Ulster driver **Winston Henry** behind. McHale was out for the first time in the ex "Taurus" Chevette HSR, as used by Terry Kaby. The Vauxhall was a bit of a shambles, but it was McHale's first time in Group 4, so with a selection of odd tyres he was still able to equal McRae's times on the last



Ken Wood emerged the easy winner of the Scottish Championship in his TR7 V8.

day.

The second round of the series was the Circuit. Ireland's classic five day rally was also a round of the Rothmans RAC Open Championship and as such was not to be a true reflection of the Tarmac series, but still a useful yardstick of performance for the Irish drivers, particularly as the Circuit covers so much territory that local knowledge is to some extent nullified. The Circuit story is now well documented. McRae achieved his victory hat trick. Fastest of the Irish drivers was McHale, up as high as third on the famous Sunday Run Kerry stages, before the Chevette engine cried enough. **Russell Brookes** was second on the Circuit, scoring top points. **John Coyne** drove a superb rally to finish fourth behind **Henri Toivonen**, **Coyne** moving into the championship lead with 22 points. **Winston Henry** was ninth on the Circuit, the best placed Ulster driver, and stayed in the championship picture.

Donegal was next on the calendar, controversy striking even before the normally very social June all daylight thrash began. **Ger Buckley** and **Winston Henry** were not allowed to start, the organisers claiming that both drivers had illegally looked at stages. Buckley refused this, took the matter to court, and was granted an injunction against the club but was too late from the point of view that Opel Ireland had already given his seat to cousin **Billy Coleman**. For the second successive year Donegal was to provide an international victory for Castlederg's **John Lyons**.

All the while **Coyne** had been driving a controlled rally, and was more than satisfied to finish second and increase his Tarmac points lead. **Donie Keating** trailed in a distant third, totally dissatisfied with his Everclear Chevette, particularly in the braking department, but at least he had scored points. **Brendan Fagan** hadn't started the rally, the Chevette not fully rebuilt after the Circuit, and the only other top driver not mentioned was **Roger Clark**, over for a thrash in the MCD Escort with **Ellen Morgan** co-driving. The Escort's fuel injection pump didn't after only two stages, and **Roger** had to find the alternative way to enjoy one's self in Donegal. As a rally, Donegal suffered from a new start venue, Bundoran being a long way from the classic stages, plus the rally HQ, which many considered a "rip off", a far cry from the Donegal Rally adored by so many.

With three rounds down and three to go, the state of play was **Coyne**, 34pts; **Buckley**, 19; **Brookes/Lyons**, 15. With a theoretical 45 points still available it still should have been anyone's title, but looked at logically, with two Corkmen in the lead (**Coyne** is actually from Dundalk but now lives in Cork) and one round in Northern Ireland, (a round of the Rothmans Open), and the last round in Cork, the odds were in **Coyne's** favour.

The fourth round was considered by many the jewel in the Tarmac pack... The Ulster. Twenty two hours of non-stop pace note tarmac action. A new name crept onto the points table. **Bertie Fisher** and **Austin Frazer** scored a very worthy victory in their Sydney Meeke Escort, second was **Per Eklund** in the Toyota, with **Dave Whittock** reading the notes to the Swede, third **Ian Cathcart**, fourth **Malcolm Patrick** with the first Republic of Ireland driver, **Brendan Fagan** fifth and **Austin McHale** sixth. **Ger Buckley** was away back in ninth place, totally unable to come to grips with the pace notes, while championship leader **Coyne** had crashed out towards the end when trying to fend off the flying **Eklund**. **Winston Henry** had crashed out early on, possibly trying too hard after his Donegal demise, while **John Lyons** stopped after the first couple of stages, too unwell to continue, because of his chest virus complaint. **Rosemary Smith** won her fourth Ladies Award, enough to clinch the Championship title for the fair sex for herself and co-driver **Pauline Gullick**, although their Group B U Magazine Talbot Sunbeam Lotus was to be no match for **John Price's** Renault, which took that group on the Ulster, and indeed the remaining two rounds as well.

The expected influx of Irish drivers to the Rothmans Manx failed to materialise, **Bertie Fisher** upholding the honours with a popular third place, behind **Brookes** and winner **McRae**. This threw up a few interesting equations as regards the Tarmac Championship. Firstly **McRae**, apart from winning the Open British Open for the second year running, could have been the Tarmac Champion for the third year running, having achieved three outright wins, but of course had made that request for no points. **Brookes** was now in second place, with 30 points, four behind **Coyne**, and **Bertie Fisher** had shot up to third, with 27.

The last round, the Haltone Cork 20 were making noises about introducing

One most cars with the

pace notes, and **Bertie** was going there to try for a win and Tarmac victory.

Pace notes were not to be, and **Fisher** wasn't going to Cork to be beaten by local knowledge, the two drivers trying now for outright honours. Back on the Isle of Man, **Bryan Shipp** won Group N to tie with **Pat Anderson**; **Russell Close** won the big Group A class, which allied with his Circuit class win was enough to give him the championship class.

So the last round, the Haltone Cork 20, was to be the decider. **Brookes** and **Fisher** didn't enter, if **Ger Buckley** won, **John Coyne** had to finish better than eighth to take the title. **Buckley** went out. **Coyne** had it won whether he finished or not. So it was to be an absolute damp squib as far as the championship was concerned. The rally was only two hours old when **Buckley** retired with a broken clutch. **Coyne** was the 1982 Tarmac Champion. But he did not have the satisfaction even of a taste of rally champagne, crashing out on the second day when chasing newly promoted rally leader **Demi Fitzgerald** after the super quick **Austin McHale** slipped off the road with a broken ball joint, his Chevette looking as if it was heading for an international win, that honour going to **Fitzgerald**. **Ian Tilke** was second, and that man **Price** was in there in third, a fine end to his championship. The year that had promised so much had a disappointing end. Just a few of the highlights were **Price's** performance, the very fine and rapid drives from **Damien Campbell** and co-driver **David Gray** to win the 2-litre Group 2 class, some stirring battles between **Frank Fennell** and **Ken Irwin** for the Group 2 1600cc title, which was decided in Cork in **Fennell's** favour.

BRIAN PATTERSON

### Esso Scottish Rally Championship

The 1982 season was one of consolidation for the Scottish Rally Championship. It was the second year of support from Esso Petroleum Company, it was the second year of a new and stronger committee and also the second year of the new co-ordinator. Fortunately, everything worked well together and they are all coming back for more next year, but big changes are planned to make the series more competitive and much tougher but a separate new category will be reserved for newcomers to the sport.

Even so, the past year had more than its fair share of drama and desperation, excitement and bitter disappointment and not a few surprises! Surprise number one came on the Ladbroke Snowman Rally right at the start of the season when **Donald Heggie** debuted the immaculate new Gartrac Escort in its striking Goodyear livery, christening its birth with a start to finish victory.

was the Renault 5 Turbo John Price.



### KEN WOOD

In his 12 years of rallying, Ken has never driven anything other than BL products, starting with a Mini which developed into a lethally quick eight-port device, then the abortive Dolomite Sprint, first in Group 1 trim but later with a more powerful 'Group 2 and a bit' car before building his first TR7. This car used a 2-litre Sprint engine until it was written off in a huge accident in Devilla Forest.

Despite a fair measure of success with all these cars he failed to receive just recognition for particularly gritty drives, but that all changed when he put a Rover V8 engine into the TR7 shell and 'Big Rumbly' was born!

Ken is now on his second TR7 bodysell after destroying the first one last season and has continually improved the power and handling in this self-built project, so much so, that his results and finishing records must be the envy of the professional works team when it was using the same car. It will indeed be interesting to see just what will emerge from the garage beside Ken's house at the start of next season for the TR7 may run out of homologation next year and this dedicated and innovative driver intends to remain faithful to BL cars.

### Esso Scottish Rally Championship

#### Division 1

- 1, Ken Wood (Triumph TR8 V8) ..... 105pts;
- 2, Wilson Girvan (Vauxhall Chevette) ..... 73;
- 3, Robin Christie (Vauxhall Chevette) ..... 64;
- 4, Dougie Riach (Vauxhall Chevette) ..... 56;
- 5, Donald Heggie (Gartrac G3 Escort) ..... 55.

#### Division 2

- 1, Hugh Munro (Ford Escort) ..... 86pts;
- 2, Colin Aitchison (Ford Escort) ..... 77;
- 3, Malcolm Surgenor (Ford Escort) ..... 65;
- 4, John Allan (Ford Escort) ..... 56;
- 5, Alistair Smith (Ford Escort) ..... 55.



## GEOFF KITNEY

Geoff Kitney has become the first driver to win both the Welsh stage and road championships since the two series were formed in 1975. His rallying started in 1972 when he contested both road and stage events.

In 1980, he turned to Chrysler, and having switched his attention to the Welsh Stage Championship, finished fourth in class using a 1300cc Avenger. Geoff then bought a 1600cc Avenger for the following season, when he finished first in his championship class. This year he has not driven just to win his class; he has scored some fastest overall stage times on the Virgo and Nutcracker, and also briefly held the lead on the Nutcracker. He finished between fourth and sixth overall in his first six championship rounds this year despite punctures on two events. With the Avenger, he has achieved one second and would have been fourth on another round but for an uncharacteristic road penalty.

Yet all this has been achieved on a modest budget, with a car producing about 140 bhp, and costing only £1700. Geoff does much of the preparation himself, ably assisted by his service crew Pio and Ronnie, and also Colin Kirby of Fairways Garage in Carmarthen. Zenith Motor Sport have supported Geoff for several years, and Advan have provided some assistance this year so achieving the double of the Welsh and Scottish.

## Shellsport Welsh Stage Rally Championship

Overall	
Geoff Kitney (Talbot Avenger).....	67pts.
Over 1600cc	
1, Richard Gough (Ford Escort).....	47pts;
2, Steve Arnold (Talbot Sunbeam).....	34;
3, Russell Gooding (Vauxhall Chevette).....	32.
1300 to 1600cc	
1, Tim Duffee (Davrian).....	54pts;
2, Graham Hewitt (Ford Escort).....	45;
3, Glyn Jones (Talbot Sunbeam).....	22.
Under 1300cc	
1, Richard Atkinson (Davrian).....	60pts;
2, Hugh Evans (Ford Escort).....	46;
3, Frank Morgan (Ford Escort).....	39.

Already it looked as though the rest of the Division 1 runners could pack up and go home but Donald's first victory was to be his last in the Scottish series, for 'Son of Big Rumbly' took command from then on.

The Hackle Rally witnessed another striking new livery. Ken Wood appeared with the Triumph TR7 V8 in its very smart red and white Golden Wonder colours. When the shatteringly fast but temperamental Gartrac car faltered on the penultimate stage, Wood swept past to take the first of his seven maximum point scores on his way to the title. Behind these two, four Vauxhall Chevettes spent the rest of the year in close company with Wilson Girvan in the Weldex Offshore car, Robin Christie having support from Kangol helmets, Dougie Riach in the Hydrasun/Caledonian Automatics car and Bruce Lyle's

AUTOSPORT, JANUARY 6, 1983



Winner of the Division 2 title in the Scottish series was Hugh Munro.

featuring support from his own Merson Signs Firm. Girvan managed to leave behind his 'Wild Wilson' tag most of the time emerging a clear winner ahead of the other three but right up until the last round they were all battling for second place with Christie's single cam car taking third place overall. Riach had more than his share of mechanical problems and Lyle did not really get into his stride until the John Clark BMW Granite City Rally followed by a superb 10th overall on the Arnold Clark Scottish International in June.

Heggie managed to amass enough points to win back fifth overall demoting Lyle to sixth but in seventh place was the Group 1 Escort, in Strathclyde Motor Spares/Castrol colours ably piloted by Andrew Wood taking the overall Group 1 award on his way. Jimmy Fleming spent the season wrestling with the 'Bionic Roller Skate' and then mid season put an even more powerful V8 engine in the diminutive Toyota Starlet. Bill McGhie forsook his underpowered Talbot Sunbeam and took Kalazero with him to back a full Group 4 Escort acclimatising well to score some top places by the season's end.

The final award winner in Division 1 was Farquhar MacRae in 10th place contesting the championship in his Toyota Corolla from his remote base in the North West Highlands. Jimmy Horne just missed out on a top placing, the support from Stakis Hotels lasting only until mid season and Tom Muir missed the greater part of the year with a broken leg while the spectacular Kenny Stewart also succumbed to financial starvation selling his Escort to Allan Arneil.

Division 2 once again had sufficient pace at the top end of the scale for its drivers to give the supposedly quicker and more experienced crews a hard time, with Hugh Munro scoring consistently and well in the Precision Engine Services/Pipers Seafoods Ford Escort. This year, there were no sophisticated Group 4 cars in this category which made it much closer but Munro with Colin Aitchison in the JEDouglas Truck & Bus Ford Escort were still the regular top points scorers.

Geoff Kitney fairly dominated the Welsh series to become champion in his Avenger.



Aitchison continued to improve throughout the year but persistent mechanical troubles plagued his progress over the latter half. Malcolm Surgenor's Group 1 Dispak Scotland Ford Escort finished third overall but showed marked improvement in terms of speed after regular forays over the border in the National series. John Allan came out of retirement yet again with a 2-litre Escort but took the first few events to sort out the new car and just managed to take fourth overall by one point from Alistair Smith who now had a newer and better handling chassis for his old underpowered engine in the Woolspring Underlay Ford Escort. Gordon Smith in the Murrays of Alford Escort tried hard all year but the clutch on the Esso Border Counties and the differential on the Sprint Tyres Trossachs developed faults at crucial times in his championship points chase.

George Gillespie finished seventh overall and second in the 1600cc class which might have been improved had he not run out of funds mid way through the year, but came back on the penultimate round to take a superb maximum point score and a further good result on the last round of the series. Phil Walker finished eighth despite a late summer break to take in the 1000 Lakes but these were the only two Sunbeams to make the top 10 although Robert Harkness kept his venerable Avenger together long enough to take 10th overall in the category with support from Wilsons Dairies. In ninth place overall was the unique Bromag Fertilisers Opel Manta driven by newcomer Jim Fleming and although the car was built to last, this heavy and unwieldy machine was driven with great aggression.

Gavin Baird took the 1600cc class more by consistency than speed for Gillespie was the real pace setter, but his Ford Escort took maximum class points on the D & A Arbroath Stages to add to his class win from the Snowman. As usual, the 1300cc class was a hectic affair with Allan Barclay winning by a healthy margin in his KARS/Adchem/Rosslyn Coachworks Ford Escort with David

Hayton scraping enough money together to do sufficient events and score enough points to come second. The 1-litre class was not too well supported this year although Martin Murray persevered with his Mini taking four class wins to stay well ahead of Allan Rae's similar car.

Looking back, it was a good year and there are many memories, but some stand out more than others. The sheer traction of Heggie's new Escort on the long Culbin straights was breathtaking. Wood's scorching progress in the big-bellowing Triumph through Craik was spectacular and Jimmy Fleming's anti-Toyota were fantastic.

JOHN FIFE

## Shellsport Welsh

Geoff Kitney and Alan McCann won the Shellsport Welsh Stage Championship using their faithful Avenger 1600 until the Mewla, and subsequently a newer model Avenger 1600, both being entered by Zenith Motor Sport. They each scored 67 points, three short of the maximum and faced a late season challenge from Richard Atkinson who achieved six maximum scores in the Brymar Electrics Davrian 1300.

The series started with the Virgo stages on the first Sunday of the year, the snow having been cleared just prior to the event. The Epynt ranges suffered rain throughout the day, and Bob Fowden took his TR7 V8 to victory over a minute ahead of John Price. With several other championship contenders not yet ready, Mark Snelson (Escort RS) was the second Shellsport driver in the large engined class, while Kitney won the 1600 class.

The Cambrian took competitors to North Wales in mid February where David Llewellyn (Escort RS) scored maximum points, finishing second behind Nigel Worswick. The short stage at Rhiwlas, which was used six times, lead to many mechanical failures including Bob Fowden's TR which broke a front strut on the last attempt.

The Newton Stages boasted a record entry of 141 crews for their event which also qualified for the Rally Sport Championship. Richard Gough lead from start to finish, his nearest championship rival being Andy Miers (Escort RS2000) who finished third. David Llewellyn collected punctures on four of the five stages, but was now lying equal first in the large engined class of the championship together with Bob Fowden, Richard Gough and Mark Snelson.

The Severn Valley Stages had to be cancelled due to the bridgeway problems in Radnor and the surrounding forests, and the Bro Myrddin received too few entries to be run. Rescheduled from April to July was the Nutcracker Stages, and it now reverted to an all daylight format. The event featured many short stages, and Llewellyn won with Gough and Jeff Churchill close behind. Geoff Kitney took maximum class points for the fourth consecutive time, while Richard Atkinson scored points for the first time this year, having retired on the Newtown.

The all-forestry ATS Epynt Stages was taken by Terry Pankhurst, although Andy Miers scored maximum points with fourth overall ahead of newcomer Simon Paton. Churchill retired with a damaged axle, Llewellyn dropped from third place with a puncture, and Gough had an off taking a stage maximum. Miers and Gough were now trying for second in the large class behind Llewellyn, while Kitney still lead the 1600 class despite not entering this round.

# Seasonal Survey

## Down at the club

continued

Two popular rounds followed on the Epynt ranges, although both were to suffer from mixed weather conditions. **Mal Stuart** won the Fordrace Tyres, while **Steve Arnold** scored maximum points by taking fourth overall 10secs ahead of **Geoff Kitney**, who was closely followed by **Simon Paton**. After providing an early challenge, **Bob Fowden** retired with gearbox problems and **Gough** went out with a lack of oil pressure.

**Fowden** gained revenge two weeks later winning the Mewla outright, despite the loss of fifth gear for the last two stages. **Gough** non started, while **Arnold** and **Paton** both retired early with engine problems. **Llewellyn** still lead the large class from **Miers** and **Fowden**, **Kitney** now had six maximums in his class, and **Atkinson** had four maximum scores in the 1300cc class.

**Gough** gained his second Welsh Championship win of the season on the JC Van Hire/RLE stages finishing 20 secs ahead of **Graham Hewitt's** Escort Twin Cam. The event sponsor **Jeff Churchill** rolled his Mk3 Escort one mile into the first stage, while **Llewellyn** had an off on the same stage. **Fowden** took third place 1sec ahead of **Steve Arnold** on an event which featured four long stages.

The Rhondda Asphalt Rally provided **Gough** with another victory with all the stages being in the forests of Central Wales. **Llewellyn** lead for most of the day, but problems with a battery lead on the final stage dropped him well down. **Gooding** and **Arnold** added to their points scores finishing second and fourth, while **Atkinson** picked up his sixth consecutive maximum class points.

The penultimate championship round was the Milestone Stages, and was won by **Graham Hewitt** in his 1600 Escort Twin Cam. **Gough** had led until the last stage when his engine tightened and seized. **Gooding** who had been second, dropped to fifth with a puncture on the final stage, leaving **Steve Arnold** to take maximum points in the large class. **Atkinson** failed to finish which was to have a significant effect on the ultimate championship positions.

**Gough** came back to win the Nicolet Stages from start to finish. **Llewellyn** had an off on the second stage, while **Miers's** clutch failed. Among the remaining championship contenders, **Paton** finished ahead of **Gooding** and **Arnold**. The rally contained 16 short stages in the Kerry forests.

The large engined class has been keenly contested with four different drivers having been in first place, and six having been in second place at various times of the season. **Gough** eventually took the class although mechanical problems prevented him from scoring on three rounds. **Arnold** finished second

*Richard Gough on his way to take the 1600 Class in the Welsh Championship.*



Mike Hutchinson dominated the Motoring News Championship.

having shown his form mainly in the second half of the season. **Kitney** dominated the 1600 class until he changed to his newer Avenger. Since then **Graham Hewitt** has generally been quicker, while he has usually had **Tim Duffee** close behind.

In the small class **Frank Morgan** (1300 Escort) led from the Newton Stages up to the Mewla. There he had an accident on the first stage and was unable to continue the season. However, no one has matched the pace of **Atkinson** in this class, who must have been disappointed not to finish the Milestone Stages.

ANDREW BODMAN

### Century Oils/Rally Sport

A traditional format for the Century Oils/Rally Sport Championship saw the title go to the 1600cc Sunbeam of **George Robinson**. With championship points being allocated on a class basis, the way was open yet again for a member of the smaller engine capacity contenders to take top honours.

**Robinson** got the season off to a fine start with a class win on the opening round, the Langer Park Stages. Using a forestry format, almost unheard of in East Anglian rallying, the event gave the competitors an insight into how the championship was to run. A fine drive by **Geoff Taylor** saw him take second in class with his new Sunbeam and **Julian Birley** also came good with third place. **Dave Gowing** scored well and showed the form that would continue throughout the year while **Russ Cooper** took the small engine class from **Les Hurdley**.

The Marby Stages was run in tough forests of the Minehead area and saw **Nigel Button** take class points ahead of the much fancied Chevette of **Russell Gooding**. **Robinson** again took the 1600cc class ahead of local driver **Nick Wall**. **Robinson** now had a clear lead but it was not to last.

The Newton Stages took the runners to

Wales for the first time where **John Palmer** recovered from a roll on the previous round to win the class with **Roy Gillingham's** Triumph TR7 V8 second. **Dave Adams** got his Escort to the head of the 1600cc class.

Round 4 was the TSB Stages, based in Norwich where the Opel Ascona 400 of **Bob Granson** took the large class from **Gooding** and **Gowing**. Having nearly pulled out of the series this win was the boost he needed to continue. Another class win fell to **Adams** and **Kevin Francis** took his Escort to top spot in the 1600cc class when **Robinson** failed to score.

A rough event, the Sort Out Stages on Salisbury Plain followed and it was **Gooding** who took top points in his class.

Tarmac events are always popular and few more so than the Rally Radio Link Mewla Stages. **Gooding** again took maximum points but the other two classes fell to new names. **Robin Bradbury** took the 1600cc class in his Escort while the smaller class fell to the Davrian of **Richard Atkinson**.

The Gems Brock Stages in Leicestershire rounded off the series and gave **Dave Gowing** the chance to finish with a fine victory. **Robinson** clinched the series but only just. **Dave Adams** looked like snatching the title but an off put him out of the reckoning.

### Century Oils/Rally Sport Championship

1, George Robinson (Talbot Sunbeam).....	48pts
2, Les Hurdley (Ford Escort) .....	45
3, Russell Gooding (Vauxhall Chevette).....	39
4, Julian Birley (Talbot Sunbeam).....	35
5, Russ Cooper (Talbot Sunbeam).....	33

### Motoring News/BTRDA

This year's championship should have made a very early start, however, the weather conditions which always prevail on the Mini Miglia proved just too much. The event was snowed off, only to be run a fortnight later after considerable hard work by Knowdale CC. The club was rewarded with probably the best entry this year, although the later date still provided slippery conditions with a scattering of snow to keep competitors wary. The route covered most of the classic northern fell roads under all conditions, including very thick fog.

**Mike Hutchinson** and **Nigel Harris** took the honours after a helpful 'tow', and showed a very determined approach to this and indeed all the events they have competed on together. **Derek Carless** and **Pete Forrester** also gave an indication of their potential for the year.

From a newcomer to the series to the longstanding Gremlin Rally. This was again a great test of driver, navigator and car, which showed in the terrifically high retirement rate. The route was well put together with a varied type of road, from



### MIKE HUTCHINSON

**MIKE HUTCHINSON**, the quiet spoken, dedicated driver, who loves the thrill of fierce competition, dominated this year's Motoring News/BTRDA Championship. His rallying career started eight years ago with his parents' car on loan, and navigator to match. From these lowly beginnings he progressed with many local wins and the help of Lloyds of Stafford.

In these early years he concentrated on the East Midlands Championship which he won four times between 1975-1979. The year of 1978 spoiled his run of wins when he had a series of breakdowns, while 1980 brought his first series of Motoring News rounds, although restricted, through lack of financial backing, he still managed to finish the season a credible fifth overall.

With **Nigel Harris** firmly established as his navigator a further attempt on the Motoring News/BTRDA Championship brought the same end result. This was below the standard he sets himself, but mechanical breakdowns stopped further progress up the overall positions.

By now, 1982 is history and a legend as to his performance and total reliability. So from the lowly beginnings of a Hillman Hunter and any navigator, his whole approach is now more calculated and planned.

### Motoring News/BTRDA Rally Championship

1, Mike Hutchinson (Ford Escort).....	100pts
2, Terry Benson (Vauxhall Chevette) .....	90
3, Roger Moran (Ford Escort) .....	82
4, Mike Pattison (Ford Escort).....	76
5, Derek Carless (Ford Escort).....	73

the very slippery mud covered roads to fast lanes. This obviously suited **Hutchinson**, who was stamping his authority on the championship by gaining his second win. **Terry Benson** and **Derek Fryer** took a good runner up position which would put them in good stead for the year. **Peter Gerbez** and **John Kiff** also took a good result while the 1300cc brigade obviously enjoyed the slippery conditions getting ninth and 12th respectively for **Malcolm Byrom** and **Nick Starkey**.

The only trip to Yorkshire was to the fine Otley MC, Coleman Tyres rally. This was to be the first outing for last year's champions **Ron Beecroft** and **John Millington** in the incredible Minisport Escort. The route was fast and furious but without the usual Yorkshire straights dominating the event. **Hutchinson** came off best when **Beecroft** retired within sight of the finish while holding a comfortable lead. **Geoff Birkett** and **Dave Orrick** took the Ascona 400 and used the accumulated experience and power to show off their northern prowess. Close behind, **Terry Benson** and **Derek Fryer** scored more useful points.

Midsummer was celebrated with the

## Down at the club

continued

Cambrian News. The route was up to the usual standard of previous Cambrians, including the notorious Nant-Y-Moch road. **Mick Briant** and **Andy Sleeman** led the event only to retire leaving Hutchinson in the chair for his fourth successive victory. **Peter Vaughan** and **Peter Watts** scored their first points of the year after a close-fought battle with last year's winner **Derek Carless**.

Another new event to *Motoring News* was the Eagle Rally although it was featured for many years as a BTRDA Silver Star round, held just across the map from the Cambrian. Despite its close proximity, the route took a very intricate way round the numerous lanes which abound in that particular area. The long sections took their toll on the timing with many of the lower crews going OTL. A particularly deep ford saw many crews really in trouble with the muddy base being almost impassable. A local spectator eventually showed the correct route to miss the soft spot.

**Peter Vaughan** took overall honours from Hutchinson. Again Benson gained more useful points from a fine third place.

After the tight, twisty Eagle, the Devil's Own provided quick moorlands and lanes, with longer sections than are usually possible in the North, thus making a welcome return after a six year absence from the series. This was to be a battle of the local drivers between **Geoff Birkett** and **Ian Woof**, unfortunately spoiled when the inexperienced Scot took a wrong time, dropping him way down the order. **Terry Benson** took second by a narrow margin, despite a close encounter with a bridge parapet, from the ever consistent Hutchinson.

The RL Brown Rally is usually another local benefit except this year when retirements and punctures left the top placings alone. The friendliness of competitors which abounds on all events was shown when **Peter Vaughan** helped **Mike Hutchinson** to get a start. The ring gear had come loose on the flywheel so a gearbox change before the start was duly done without any great fuss.

Firstly **Geoff Birkett** went off puncturing two tyres on **Hardknott** pass and then **Terry Benson** broke the rear axle, promoting **Mick Briant** to the top spot. **Mike Pattinson** and **Dave Taylor** followed, getting closer to that championship win, with Hutchinson taking third, and securing the championship victory with still three rounds to go.

Scotland's mainland offering should have been the Dunfermline CC's Ali Shuffle Rally, but some insurmountable troubles with the route meant cancellation rather than a sub-standard event.

Still within Scotland, the 'circus' moved to Mull for the usual merry-making which somehow manages to include a two-night and one-day rally. Although totally different to the rest of the events, its popularity among competitors ensures that it remains in the series. The event was dominated by three crews — **Pattinson** was fastest on half the sections, but two time consuming offs dropped him to sixth. **Neil MacKinnon** and **Dave Cowan** held pace at the right level, to take Neil's hat-trick of wins, under considerable pressure from **Peter Vaughan** who took second after going off and blocking a section which had to be cancelled. Third place went rather unexpectedly to **Alister Sutherland** and **Nigel Harris** despite a hurried axle rebuild on Saturday morning.

From the furthest point north to the furthest point south on the series, crews travelled down to the Cilwdeg. The Newcastle Emlyn start has the most

amazing atmosphere which has to be experienced. The whole town seems to come alive for the event as if it were the national sport. Again the Welsh lanes were covered in a heavy dose of wet mud which has become almost obligatory this year. The focus of attention at the start was **Kevin Videon** and **Barry Cooper** in Britain's first road rallying Quattro, although the crew retired after a poor first third.

**Mike Pattison** came good and won the event, a feat he had been threatening to do all year, while **Roger Moran** and **Tony Beddoes** held up the pressure to gain a fine second place and consolidate their championship position. **Theo Bengry** and **Paul Watkins** were a good third, although things could have been better if they had not been held up by a non competing car.

Again the muddy lanes prevailed on the JJ Brown. The entry list was good but four non-starters out of the top 10 lowered the class. The event was a real test of man and machine on a superb route with the competition long and hard, if a little tightly timed. Early pacesetters, **Mike Pattison** and **Derek Carless** both went off. The latter being able to continue, but well down the field. **Roger Moran** drove a calculated event to win. **Terry Benson** had two punctures which put down their chances of finishing the season with a much deserved win. **Kevin King** and **Phil Jones** survived two time consuming wrong slots to finish a good third.

The 1982 championship has indeed been a fine series of events. All the events have been of a high standard, as was the behaviour of the competitors. Just one protest spoiled the 'status quo' within the very friendly atmosphere which is part of the attraction of this long standing series.

KEVIN SAVAGE

### Malcolm Wilson (Motorsport)

When **Martin Atkinson** hurled his Escort RS into the ditch on the Tour of Hamsterley, he handed the Malcolm Wilson (Motorsport) Championship to **Willie Richardson**. Willie rounded off a consistent season with another fine drive under the guidance of **Ken Wilson** to finish eighth overall in his 1600 cc Datsun Violet, backed by Datsun dealers H & F Steele of Workington. The car's crumpled rear end, sustained when another stricken car served as a crash barrier and saved Willie from a trip into the scenery, showed that he had his share of luck as well as speed, both being needed to win most championships.

**Ian Gillespie**, joint series leader with Richardson before Hamsterley, struggled to 13th overall with a persistent misfire on his smoking Twin Cam Escort, and so failed to improve his score on this very competitive event. Ian's challenge for the series, backed by IGT Rallying and Cannon Plant Hire, was helped by the very generous gesture of **Tony Ridley**, Championship 1300 class winner, who paid Ian's Tour of Cumbria entry fee when lack of funds looked like preventing Ian from entering. **Martin Atkinson** had a fast but inconsistent series, and a visit to another ditch on the Mogil Stages, following a puncture, proved crucial to his progress in the series. His stage maximum on Hamsterley prevented a probable second overall, and first in the Championship.

Sponsored by Malcolm Wilson's parts and preparation business in Workington for the first time, the ANECC Stage Rally Championship comprised nine rounds, having lost the Tyneside Stages due to Army games on Otterburn. Three Pace/AUTOSPORT, three Esso/BTRDA, an Esso/Scottish and two of the

best clubman's rallies in the country ensured an impressive standard of event, and proved to be a popular format. A record 100 registrations were received, and a number of crews switched from the National Championships to the Malcom Wilson series as the season progressed. Despite only five results counting from the nine rounds, consistency beat outright speed with 1600 cc cars first and second overall. With a different leader after each of the first six rounds, (the lead changing eight times altogether), what proved to be a three man race was always close with a fair amount of psyching going on between the front runners **John Brown**, **Fred Henderson**, and **Darryl Weidner** showed strongly early in the year, with **Ivor Clark** and ex-champion **Dominic Buckley** also winning individual rounds, but the winners came from those who supported the whole series.

**Phil Sandham** from Morecambe, who helped **Dave Metcalfe** to be fourth driver, won the co-drivers section from **Val Bainbridge**, with **Mike Rowe** third. With more crews planning to contest their regional series rather than the national championships, the ANECC Championship should be even better in the coming year.

CHRIS MORTON



### WILLIE RICHARDSON

In 1981, his first full season of forest rallying gave Willie Richardson a class win in the Norflex ANECC Championship, driving his 1300cc Escort. The following year, he ran the 1600cc Datsun Violet of H & F Steele, Datsun main dealers of Workington, and not only won the class, but took overall victory in the Malcolm Wilson (Motorsport) backed Championship.

Willie, just 21 years of age, is a chemical plant fitter, and lives in Egremont, Cumbria. He prepares the Datsun himself, on the traditional shoestring, and acknowledges the help and encouragement of H & F Steele during the season. The effectiveness of his work has been shown in the car's reliability, having scored points on all seven of the rounds he has entered. With just 109bhp at the axle, the Group 1½ car demonstrated strength and good handling, and undoubtedly helped Willie to show his driving skills.

Co-drivers this year have been his brother **Dion**, and **Ken Wilson**, whose advice has been a factor in the year's success. With Willie's ability to learn, he deserves more support for the future. In the coming season, he would like to progress to the Pace/AUTOSPORT Group A series as the next step, but without the backing for that may run the Datsun again.

### Malcolm Wilson (Motorsport)/ANECC Championship

1, Willie Richardson (Datsun Violet) .....	62pts;
2, Ian Gillespie (Ford Escort) .....	61;
3, Martin Atkinson (Ford Escort) .....	56;
4, Dave Metcalfe (Ford Escort) .....	55;
5, John Saint (Toyota Celica) .....	51.

### Wilcock Insurance

In 1982 Wilcock Insurance of Longridge decided to sponsor a Stage Rally Championship based in the North West and organised by **Langton & District MC**. The Championship was to be based over eight rounds, with the best six scores to count. It was divided into three classes — up to 1300cc; 1300-1600cc, and over 1600cc. 10 points were available in each class for the highest placed championship contender in each class. Second highest received nine points, and so on down to one point for 10th place. A prize fund of £1000 was available for the championship and there were separate championships for driver and co-driver.

On the Mayfield Safari Rally there were a large number of entrants from the Isle of Man and one of these, **Gary Leece** from Douglas, took first in class and 10 points in his 2-litre Escort RS. However, this Manx presence did not continue for the rest of the championship. Other maximum points scorers on the Mayfield were **John Ingram** (1.3 Avenger) and **Kingsley Ingram** (1.6 Sunbeam) from Cheadle Hulme. The Ingrams' challenge for the championship all but died on the Mild & Bitter Rally later in the year when the girlfriend of **John Ingram** was injured while spectating at the end of the first stage, and **John** and **Kingsley** both withdrew from the rally.

**Steve Bamber** from Accrington took nine points in the up to 1600cc class though his great rival through the year, **Dave Leaver**, did not compete on the Mayfield. The second round of the championship was the Lakeland Stages on which Leaver made his first championship outing and took 10 points. By round 3, the Plains, it was becoming quite clear that **Bamber** and **Leaver** were setting the pace in their respective classes.

It was however, on round 4, that **Nick Woodman** from Blackpool in his 2-litre Escort, took 10 points and started a late charge that was to take him to third in the championship and almost up to **Bamber** and **Leaver**. **Andrew Smalley** from Leeds driving the Warburton's 1600 Escort, took the 10 points in the 1300-1600 Class on the Mild & Bitter, depriving **Bamber** of a valuable point.

**Smalley** was to achieve this feat again on the Elcar Rally which meant that going into the final round of the championship the **Jeff Williamson Premier Stages**, **Bamber** had 57 points and **Leaver** had 56. However, with the best six scores to count if both drivers won their championship classes on the final round, they would both finish on 58 points necessitating a tie-breaker.

On the final round, the biggest threat to **Bamber** was **Smalley** who had progressively been getting quicker throughout the year. However, an engine blow out for **Smalley** meant that **Bamber** could take things easy. **Steve** however, chose not to do this and drove one of his best events of the year to take first in class overall on the event. **Leaver** took 10 points by finishing highest place of the up to 1300 championship contenders.

When the tie-breaker was used, **Bamber** came out the victor by virtue of his two firsts in class on the Black Horse Trophy Rally and the **Jeff Williamson Premier Stages**. In the Co-drivers Championship, **Steve's** regular partner **Wayne McKenna** took first place.

BARRY COOK

### Wilcock Insurance Stage Rally Championship

1, Steve Bamber (Talbot Sunbeam) .....	58pts;
2, Dave Leaver (Ford Escort) .....	58;
3, Nick Woodman (Ford Escort) .....	54;
4, Barry Attwood (Vauxhall Chevette) .....	47;
5, John Clarke (Ford Escort) .....	44.



Top: Darryl Weidner had a busy year competing in the Esso/BTRDA and Esso Scottish Rally Championships as well as putting in an appearance on the occasional round of the Pacer/AUTOSPORT series. Although he only got into the top placings on the BTRDA series, he put in some fine drives. Left: Ken Wood dominated the Esso Scottish Championship with the Golden Wonder Triumph TR7 V8. The title was decided in his favour long before the final round in October. Photos: Michael Cornish.



GOODYEAR

Valvoline

ESMARK

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40

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GOODYEAR

# Marvellous Mears

GORDON KIRBY looks back on another year of CART racing that saw the Penske team come out on top.

The boom that has swept over CART's Indy car championship in the past couple of years has been one of the best things to happen to American racing in a long time.

It must be remembered that during the seventies, as Grand Prix and NASCAR Grand National racing grew in their own separate ways, the traditional forms of American thoroughbred automobile racing represented by the USAC Championship and the SCCA's CanAm/F5000 series were caught in a downward spiral of piebald mismanagement. Connections between costs of competing and returns in prize money and sponsorship quickly lost any sense of proportion. The two clubs—USAC and the SCCA—were also cerebrally outflanked by rapid changes in the pace of technical development as well as the fast-shifting requirements of the market place. The result was that—the Indianapolis 500 aside—thoroughbred automobile racing on both ovals and road courses in North America faded rapidly in quality, excitement, fan appeal and media coverage.

Enter, in the summer of 1978, an association of most leading USAC Championship entrants which included teams with very successful records in many types of oval and road racing such as Penske Racing, Chaparral (Jim Hall), Team McLaren (Tyler Alexander) and All-American Racers (Dan Gurney). The entrants' association quickly became an organising body and, in 1979, they initiated a breakaway from USAC and hence the FIA which has since become steadily more sound and successful. With fresh promotion and packaging, a lucrative series sponsor in glass and paint manufacturer PPG Industries, and expanded TV coverage by NBC and the ESPN sports-only network, CART has dramatically reversed the dwindling fortunes of the 73-year-old American national driving championship.

Although the Indianapolis 500 remains an event unto itself—it was USAC's only championship race of the past year—a spirit of 'working together' began to materialise this year between CART and the Indianapolis Motor Speedway management. Following the resignation in early May of IMS President John Cooper, relations improved to the point that before the end of the month acting President Joe Cloutier had announced that next spring's 67th Indy 500, if not a CART-sanctioned event, will at least be a point-counting, prize money-paying round of the PPG Indy Car World Series.

Meantime a fresh round of blood in drivers and teams, primarily from the ranks of the SCCA—would be CanAm or Formula 1 contenders suddenly becoming part of a long-dormant American tradition—have begun substantially to change the look of Indycar racing. Drivers like Bobby Rahal, Kevin Cogan and Geoff Brabham and teams like those run by Doug Shierson, Carl Haas, Paul Newman and Count Rudi van der Straten have not only cut heavily into the fast-vanishing base of the CanAm series, but have also helped establish Indycar racing as an attractive alternative to financially hard-pushed promoters of North American F1 races.

Through all this the Sport lives happily in Indycar racing. Part of this, to be sure, is because there is still nothing like the chequebook numbers in salaries, purses and sponsor budgets that flow through the ranks of F1. But there's more to it than that. There is, for example, a genuine spirit of co-operation, rather than confrontation, in most corners of an Indycar paddock. The immediate success of CART and the role that so many of the players had in the establishment of the organisation have a lot to do with this as does the (loosely speaking) similar language spoken by everyone.

Certainly there is strength also in the make-up of the CART Board and in the absence of complex and peculiar committees and political structures. The CART membership as a whole annually votes members of the Board into office with drivers and mechanic representatives up for election on a yearly basis and the remaining positions coming up for review on two-three and four-year bases. The current CART Board comprises Chairman John Frasco (a suburban Detroit lawyer who serves on a yearly term), Roger Penske, Pat Patrick, Jim Hall (to be replaced following his recent pull-out), Bill Alsop, Jim Trueman, Art Groenevelt (principal owner of Tony Bettenhausen's team), Pancho Carter and Johnny Capels, the last two representing drivers and mechanics respectively.

None of this should imply that CART is entirely without problems. There have been justifiable complaints about a variety of things, ranging from poor lap scoring to increases granted in boost pressure for the past year's road races to the endless push and shove for purses and other prize monies to keep in step with the effects of inflation and stiffer competition.

The biggest problem facing CART at the moment, however, is the same one which confronts the entire world of 'thoroughbred' automobile racing. Viz: How do you restrict technology—the ever-quicken path of progress—and keep costs in hand and circuits and safety in practical perspective? This very thorny problem is being tackled in somewhat different ways by both CART and the FIA this year, both sets of regulations coming in the wake of unfortunately spectacular tragedies.

## The Great Slow-Down Dilemma

The F1 flat-bottom rulings were certainly triggered by the death of Gilles Villeneuve while in the USA less-dramatic attempts at aerodynamic restrictions came in the wake of Gordon Smiley's ferocious crash at Indianapolis and, to a much lesser extent, the death of rookie Jim Hickman at Milwaukee in August.

Smiley and Hickman were the first men to be killed at the wheels of Indy cars in nine years and, although most people involved in the sport felt their deaths were more "the breaks of the game" than anything, the combination of the explosiveness of Smiley's crash and the fact that qualifying speeds at Indy were beginning to approach 210mph compelled the powers-that-be at both Indianapolis and CART to attempt to reduce

### 1982 CART/PPG INDYCAR WORLD SERIES

		Mar 28 Phoenix 150	May 1 Atlanta 200	May 13 Milwaukee 150	Jul 4 Cleveland 500	Jul 18 Michigan 500	Aug 1 Milwaukee 200	Aug 15 Pocono 500	Aug 29 Riverside 500	Sep 19 Elkhart Lake 200	Sep 26 Michigan 150	Nov 6 Phoenix 150	Total points
1	Rick Mears (USA).....Penske PC10.....	22+*	44+*	14	36	3	6+*	66+*	63*	22+	1+	17+	294
2	Bobby Rahal (USA).....March 82C.....	1	—	1	60	42	32	42	3	30*	21*	10	242
3	Mario Andretti (USA).....Wildcat Mk8B.....	16	4	4	48	51+	28	3	—	4	16	14	188
4	Gordon Johncock (USA).....Wildcat Mk8B.....	10	32	22+	30	63*	4	24	—	—	1	—	186
5	Tom Sneva (USA).....March 82C.....	6	2	12	3	—	40	3	48	8	1	21*	144
6	Kevin Cogan (USA).....Penske PC10.....	14	2	10	15+*	3	20	48	12+	—	—	12	136
7	Al Unser Snr (USA).....Longhorn LRO3.....	—	10	1	42	36	—	3	32	1	—	—	125
8	Geoff Brabham (AUS).....March 82C.....	1	2	6	24	18	6	36	—	2	14	1	110
9	Roger Mears (USA).....Penske PC7/PC9B/PC10.....	5	24	—	—	3	2	12	36	10	5	6	103
10	Tony Bettenhausen (USA).....March 82C/Phoenix.....	1	2	1	—	9	2	30	3	12	12	8	80
11	Bill Alsop (USA).....Penske PC9B/PC7.....	2	20	1	3	3	8	3	15	2	8	5	70
12	Johnny Rutherford (USA).....Chaparral 2K/March 82C.....	12	—	1	—	—	2	3	42	2	—	—	62
13	Josele Garza (MEX).....March 81C/82C/Penske PC9.....	1	2	5	3	—	10	3	3	24	4	1	56
	Howdy Holmes (USA).....March 82C.....	1	—	3	3	3	24	—	3	6	10	3	56
15	Hector Rebaque (MEX).....March 82C.....	—	2	—	3	—	—	—	3	40	—	—	48
	Gary Bettenhausen (USA).....Penske PC7/March 82C.....	—	—	—	—	24	2	15	—	2	1	4	48
17	Pancho Carter (USA).....March 82C.....	8	6	1	3	3	16	—	3	4	1	2	47
18	Johnny Parsons (USA).....March 82C.....	—	—	8	12	3	—	18	—	—	—	—	41
19	Mike Mosley (USA).....March 82C.....	—	—	—	15	12	3	—	—	—	6	1	37
20	Tom Bigelow (USA).....Eagle-Chev 81.....	—	—	1	—	30	—	—	—	—	1	—	32
21	Al Unser Jr (USA).....March 82C.....	—	—	—	—	—	—	—	30	—	—	—	30
22	Danny Sullivan (USA).....March 82C.....	—	28	—	—	—	—	—	—	—	—	—	28
23	Greg Leffler (USA).....Eagle-Chev 81.....	—	—	—	—	—	—	24	2	—	1	—	27
	Phil Krueger (USA).....Penske-Chev PC5/King-Chev.....	—	2	—	—	—	—	6	—	16	2	1	27
25	Dick Simon (USA).....Watson.....	—	—	1	3	—	2	—	18	—	1	—	26
26	Jim Hickman †.....March 81C.....	—	12	—	—	12	—	—	—	—	—	—	24
	Herrn Johnson (USA).....Eagle-Chev 81.....	1	16	—	3	—	2	—	—	2	—	—	24
28	AJ Foyt Jr (USA).....March 82C.....	—	—	16	—	3	—	3	—	—	—	—	22
	Bill Tempero (USA).....Longhorn-Chev LRO1.....	—	—	—	15	—	2	—	3	2	—	—	22
30	Vern Schuppan (AUS).....Penske PC9B.....	—	—	—	18	—	—	—	—	—	—	—	18

#### KEY

† Deceased  
Points are scored on the basis of 20-16-14-12-10-8-6-5-4-3-2 to the top 11 finishers and 1 point down to 20th place, subject to a multiplication factor of ×2 for races between 150 and 300 miles and ×3 for races longer than 300 miles.  
+ Includes bonus point for pole position.  
\* Includes bonus point for leading most laps in each race.

FACING PAGE: Mario Andretti had one of his best CART seasons for a long time scoring three second place finishes and taking third place in the championship table above his team-mate Gordon Johncock.



# Seasonal Survey

## Marvellous Mears

continued

cornering speeds. Most of the drivers agreed that it would be a good idea to try to restrict the cars so that lap speeds at Indianapolis would stay around the 200mph mark. Few of them wanted to see power outputs restricted any more than the current 48ins Hg turbo boost limitation (about 750bhp for a good engine), with most of the drivers preferring to see more horsepower and less cornering power.

The result was that, in late August, CART announced a package of revisions to the 1983 bodywork/aerodynamic regulations. Essentially CART's new rules require that all bodywork and aerodynamic devices (except the nose) be mounted at least one inch above the baseline of the chassis. The flat, rigid bottom of the chassis must describe a plane no smaller than 78ins in length with minimum widths of 10ins at the front and 16ins at the rear of the plane. Any devices or methods of achieving bodywork deflection are also specifically banned, while the maximum set-back of the rear wing has been reduced by 7ins.

In company with this announcement Kirk Russell, CART's director of Operations/Technical director, said the rules would be reviewed as early as possible in the 1983 season with further restrictions for 1984 to follow promptly if the CART Board were to deem them necessary. Obviously the intent here is to attempt to restrict performance as progressively as possible without costing everyone vast sums in all-new cars and development programmes.

Now, USAC continues to hold sway as the sanctioning body for the Indy 500 (presumably the Speedway continues to keep USAC in business so as to avoid having to deal directly with CART for a substantial increase in the now-outdated purse). In its characteristically contrary way, USAC followed CART's 1983 rules announcement with one of its own about a month later which echoed the specifics of the CART rules but went its own path with further boost restrictions (down to 45in Hg) and an additional inch (up to 2ins) in the minimum bodywork height-to-chassis baseline.

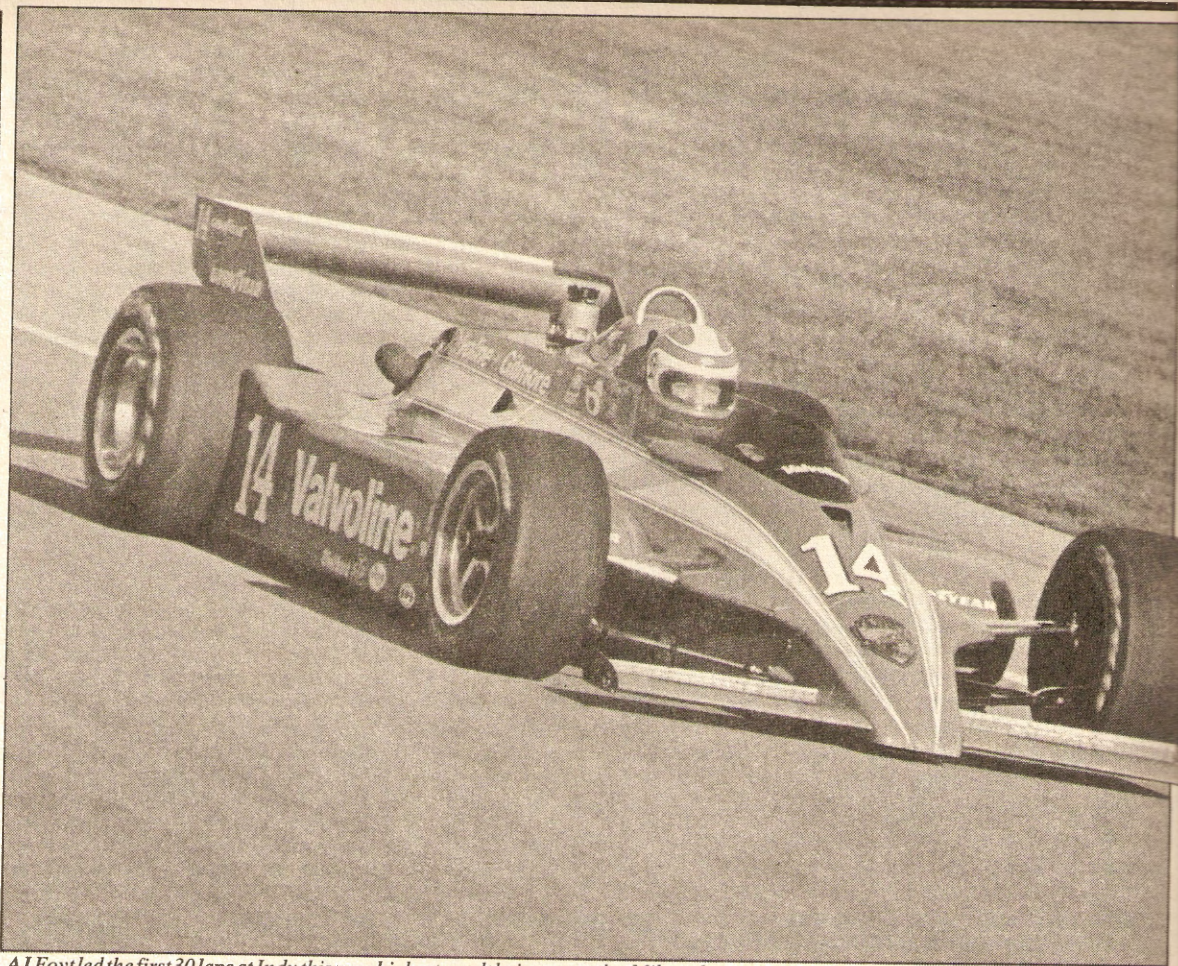
At the time of writing the Indianapolis Motor Speedway had not confirmed that USAC would sanction the race in 1983 although the guessing is that confirmation will come and that USAC might compromise by agreeing to CART's bodywork height regulation although remaining adamant about their 45ins Hg boost restriction . . .

## Mears and the PC10

Penske racing won their fifth Indycar championship in six years in 1982 with (31-years-old) Rick Mears taking his third personal title as he won four of the 12 races and started from the pole no fewer than nine times.

The team's all-new PC10 chassis was by far the neatest design produced by Geoff Ferris since he turned his hand to mastering the Indycar art, in 1977. Allowing himself much more freedom than he had in designing the PC6-through-9B models, Ferris produced a graceful rendition of the classic, side-podded, tunnel car of the times.

The 10 featured particularly wide air tunnels with the lower portion of the monocoque's profile receiving a stepped-in treatment in order to provide extra tunnel area. An attractive and interesting touch was the hose treatment which cleaved the air with a vertical knife-edge rather than the more traditional prone, wedge shape. The car's long, comparatively narrow-chord nose wings were not only of a much better aspect ratio than those on other cars, but



AJ Foyt led the first 30 laps at Indy this year his best result being second at Milwaukee.

they also served to complete the impression of an economically shaped and extremely well-balanced machine — even while sitting at rest in the pitlane!

In Mears's hands in particular, the car looked the part on the track as the smoothly aggressive champion was able to propel his PC10 down the road in long, full sweeps, the power hard on, the tail dancing confidently, almost daintily — barely perceivable in the wall-challenging fury of Rick's hottest qualifying laps. His confidence in the car was both obvious and astounding not only in the visual impression of the moment, but also in the cool clarity of statistical analysis which shows him starting from the pole nine times and clearly setting the pace in half the races.

Although he won two fewer races last season than in 1981, Mears was much more dominant in 1982 than he had ever been before. Obviously the effectiveness of the PC10 had a lot to do with this but so too did his move, after four years of apprenticeship, into the number one/test driver role at Penske (Bobby Unser holding sway during his 1979-81 tenure with the team). As Mears developed the PC10, he finally seemed to become accustomed to his position at the head of the Indycar field and his quiet confidence grew stronger, sharper, more sporting.

Rick started the year by dominating the first two races — a 150-miler at Phoenix and a 200-miler at Atlanta — in a car that had worked well from the moment it was first tested in November of 1981. At Indianapolis he again dominated during the first week of practice and qualifying, being threatened for pole position only by new team-mate Kevin Cogan. In the race he continued to set the pace, although Gordon Johncock clung grittily to his tail and three-quarters of the way through the 500 miles Gordy was able to inch ahead along the backstraight. That set the stage for the final round of pitstops

where Mears almost hit Herm Johnson in the pitlane and then lost time when Penske himself held his man in the pits in order to make sure there was plenty of fuel in the tank of the PC10.

So it was that Rick spent his last dozen laps chiselling away at Johncock's 10secs cushion, lapping on the sharp edge of 200mph, and catching Gordy as they began their last lap. The mercurial Johncock held him off, however, in a magnificent final sprint around the four-cornered, 2½-mile oval.

Two weeks later, Johncock showed his short-track prowess by qualifying on the pole at Milwaukee and leading the 150-mile race for most of the distance. Mears could only hang on, finally finishing third behind a very on-form AJ Foyt who drove a tactically sharp race, going the distance on only one fuel stop.

At the inaugural Cleveland 500 Kms on July 4 — the first road race of the season — Mears qualified fourth and then ran a comfortable second behind Cogan in the early laps. Through the race's middle stages he took over when Cogan broke a shock absorber and looked in good shape to score another win before an electrical fault turned his Cosworth DFX into a ratty-sounding sewing machine. He made it home in fourth place, however, and retained a fairly comfortable lead in the point standings.

At the Michigan 500 the picture suddenly changed, though, as a piece of debris punctured a front tyre while Mears was again setting the pace and dominating the day. His car leaped out of the groove and smacked heavily into the wall, where the car demonstrated its crashability by keeping its footbox in remarkably good shape and allowing Rick to jump out, unscratched. In the meantime Johncock and Mario Andretti went on to score a convincing one-two result for arch-rivals Patrick Racing as Mears found himself slipping to third

## Indycar facts

### Leader table

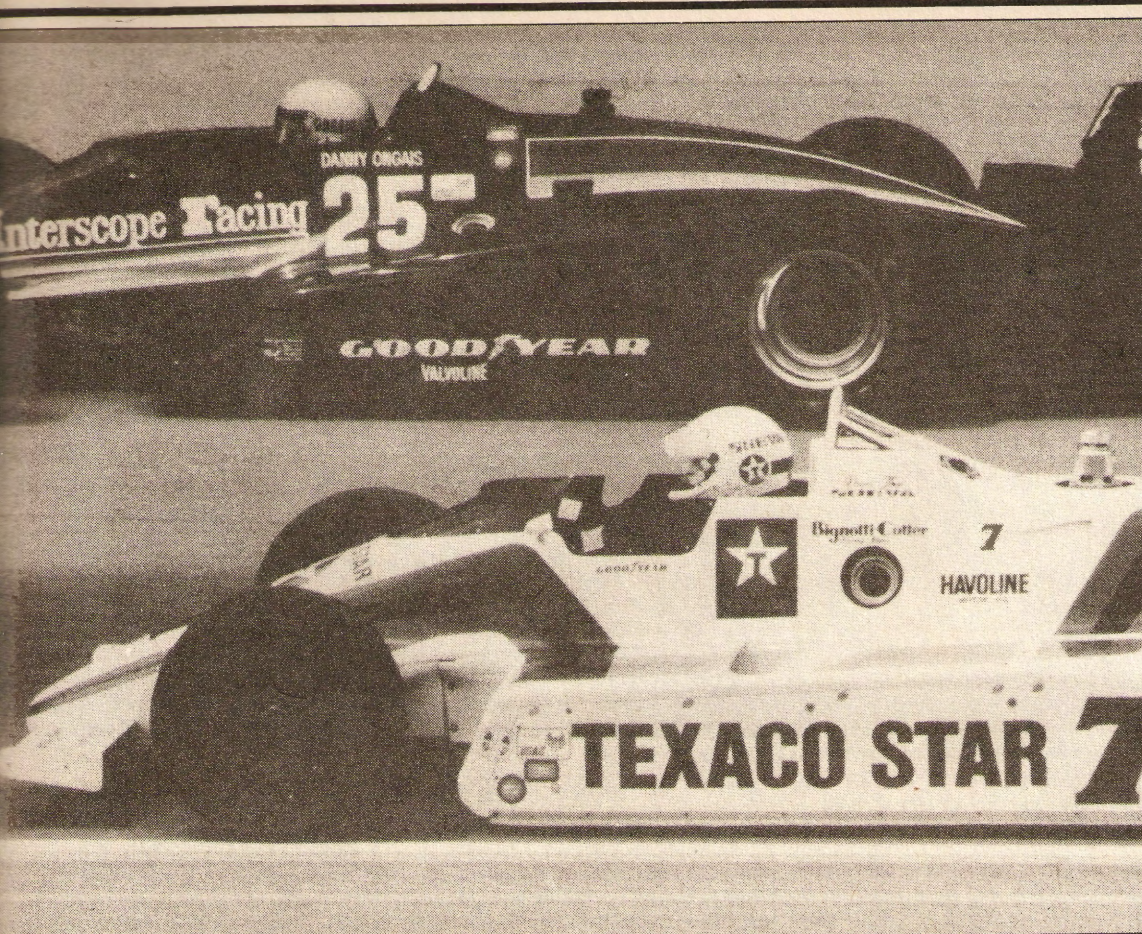
	Poles	Wins	Laps led †
Rick Mears	8 †	4	823 (46.31%)
Gordon Johncock	1	3 †	342 (19.25%)
Tom Sneva	—	2	162 (9.12%)
Mario Andretti	1*	—	114 (6.42%)
Kevin Cogan	2	—	106 (5.97%)
Bobby Rahal	—	2	78 (4.39%)
AJ Foyt	—	—	44 (2.48%)
Howdy Holmes	—	—	40 (2.25%)
Pancho Carter	—	—	25 (1.41%)
Johnny Rutherford	—	—	24 (1.35%)
Al Unser Snr	—	—	9 (0.51%)
Don Whittington	—	—	5 (0.28%)
Geoff Brabham	—	—	2 (0.11%)
Tony Bettenhausen	—	—	1 (0.05%)
Hector Rebaque	—	1	1 (0.05%)
Danny Ongais	—	—	1 (0.05%)
Penske	10 †	4	929 (52.28%)
Wildcat	2	3 †	456 (25.66%)
March	—	5	382 (21.50%)
Longhorn	—	—	9 (0.51%)
Interscope	—	—	1 (0.05%)

### NB:

† Includes Indianapolis 500, which was not a round of the 1982 CART PPG World Series.  
\* Andretti started the Michigan 500 from 33rd position after crashing in post-qualifying practice session.

### Finishing record

	Finisher	Total (3,274,404 miles)
Rick Mears	9	2,978.924 (90.98%)
Gordon Johncock	7	2,633.024 (80.41%)
Bobby Rahal	7	2,620.200 (80.02%)
Bill Alsup	7	2,224.182 (67.93%)
Mario Andretti	6	2,172.696 (66.35%)
Geoff Brabham	5	2,154.640 (65.80%)
Howdy Holmes	6	2,077.260 (63.44%)
Pancho Carter	4	2,059.126 (62.89%)
Roger Mears	7	2,043.916 (62.42%)
Tom Sneva	6	2,041.526 (62.35%)



Ongais was out of luck at Indy for the second year running while Sneva went on to finish fifth in the championship.

place in the point standings.

At Milwaukee two weeks later for a 200-miler, Mears and the PC10 showed much better form than they had at the same track in June as Rick outqualified Johncock and again took control of the afternoon. More bad luck, however, when he lost an engine just past the halfway mark and failed to finish for the second race in a row. Fortunately for the Penske team Johncock did no better, losing 40 laps in the pits after getting stuck in second gear. Andretti and Rahal kept themselves in contention by finishing third and second, behind winner Tom Sneva.

At Pocono in mid-August things got back on track for Mears and his men as they gambled on using a new Warner-Ishi blower to qualify on the pole by a huge margin and then win the race at a canter with Cogan providing a sound back-up in second place. Andretti dropped out with ignition problems, Rahal hung on for third and Johncock's gearbox lost all drive as he was struggling to hold-off Cogan with just six laps to go. The result put Mears back on top of the points by a small margin from Johncock and Rahal while Andretti was some distance behind in fourth place.

Two weeks later Rick consolidated his position by scoring a conservative win in the car-breaking 500 Kms race at Riverside. Andretti, Cogan and Rahal all led Mears in the early going but each of them dropped out in quick succession as did Johncock who was into the pits early with more jammed gears.

With Indianapolis not counting and CART's point system being weighted in favour of the longer races, Mears was suddenly within reach of his second successive title.

The last three races of the season were all comparatively unimportant 150-milers and, when Mexico City was cancelled, there was suddenly a lot of emphasis resting on the season's ninth point-counting race.

The first appearance of Indycars at

Elkhart Lake's fine 4 mile road course was the object of this emphasis and, when Johncock and Andretti once again ran into gearbox problems, Mears was able to wrap-up the championship with a fuel-nursing run into fifth place after a long pitstop to change his fuel system's main jet! Most of the front-runners had fuel consumption problems in their first visit to the Elkhart road course with Hector Rebaque winning after Rahal and Al Unser ran out of fuel in the closing laps.

Mears closed-out the season by qualifying on the pole for both the late-September 150-miler at Michigan and November's similar sprint at Phoenix. At MIS, however, he experienced his shortest race yet for the Penske team when his engine blew up on the first lap, and at Phoenix he set the pace in the early going before being overhauled and finally beaten into second by Sneva.

While the triple champ may not have matched his finishing records of 1979 and 1981, he and his team still did pretty well, failing to finish only three races (two engine failures, one cut tyre and subsequent crash) and easily outdistancing everyone else in the completed mileage category. He was among the top five in all of the nine races he finished and, whenever he had a troublefree run, he was always among the first three. For the record, Mears has now won 17 of the 61 Indycar races he has started since 1976 and his 29.36% record of wins compares favourably with AJ Foyt's 22.78% tally (67 wins from 293 starts). Since joining Penske at the beginning of 1978, Mears has driven in 50 races for the team, scoring all of his 17 wins in Penske-run cars.

Managed since September of 1980 by Scot Derrick Walker, Penske Racing is a hard-working but comfortable-looking operation which operates with minimal daily input from Penske himself. The latter was engrossed during 1982 in a capital-intensive merger with Hertz Truck Leasing, a division of the RCA

Corporation which is now known as Hertz Penske Truck Leasing. Part of 'The Captain's' bid to take over the giant-but-flagging leasing operation was that he become the company's Chief Executive Officer, yet in spite of this added work load he continues to be a large presence at the races and is always in the pit of his number one driver, calling pit strategy.

Since the middle of 1979, Mears's chief mechanic has been former Lotus man Peter Parrott, a fastidious and tireless worker who has often been described as "the best-dressed mechanic in Indycar racing". There is no doubt that Parrott has played a large part in the remarkable longterm success of the Gould/Penske/Mears combination, as has the team's in-house engine shop run by veteran Penske master mechanic Karl Kainhofer.

While Mears — the team man for the team effort — was coming into his own as Penske team leader, Kevin Cogan was having a fast but difficult year in the second PC10. After doing well in a handful of 1981 starts with a tightly-budgeted, one-year-old Phoenix, Cogan was hired by Penske in the autumn of 1981 to replace a semi-retiring Bobby Unser in the team's Norton Spirit entry. The 26-year-old Californian had spent four years in Formula Atlantic — developing steadily into the fastest man in the category in his last season — and one year in the old Aurora F1 series before making his Indycar debut in the 1981 Indy 500, where he finished a sound fourth despite two separate problems with loose wheels. Two weeks later he was second to Mike Mosley at Milwaukee and, when he signed with Penske, it looked as if the finely featured, confident youngster was on his way.

He started the season well enough, qualifying and finishing third in the season-opener and going equally well at Atlanta before being stopped by a wheel-bearing failure. At Indianapolis he settled in immediately and was the only man seriously to threaten Mears for

the pole. Cogan was fastest on two days of practice and matched his teammate by doing a few 208mph laps in the week-long build-up to Pole Day. In the morning warm-up session immediately before qualifying, however, Cogan's engine blew up so that he had to jump into the team's spare car, which he still qualified in the middle of the front row at better than 204mph.

On race day, of course, the celebrated incident at the start occurred when Kevin's car got away from him as the front row threesome began to power away from an unusually slow rolling start. The PC10 shot to the right, cannoned off Foyt's March and was then T-boned by Andretti's Wildcat. A hot newcomer would be hard-pressed to imagine a worse situation than driving into no less a pair than Mr Foyt and Mr Andretti at no less a moment than the start of the world's most public automobile race...

At Milwaukee two weeks later, he crashed in testing and, looking visibly off-balance, drove a cautious race into fifth place. At Cleveland he bounced back with a vengeance, qualifying on the pole more than a second clear of Mears and then running away with the race in the early going before a broken shock absorber brought him into the pits. In the Michigan 500 on the ultra-high speed MIS oval he was never able to match the fastest cars although he was still hanging onto the leader's lap when his engine broke around the two-thirds mark. At Milwaukee again for the August race, he qualified second to his team-mate and then finished an unimpressive fifth in the race, although in the Pocono 500 he did an excellent job, qualifying and finishing second to Mears with an engine that was no match for the team leader's.

It was around this time that Cogan began to realise he wasn't going to be renewed for 1982. And his luck took another bad turn as he had another engine failure while leading the 500Ks at Riverside and then he crashed in practice at Elkhart Lake. In the race at Elkhart, his engine blew up on the first lap and at Michigan the following weekend he had the biggest crash of his season while trying to hold-off Foyt for the lead!

Kevin qualified a strong second to Mears for the 150-miler at MIS but when Rick's engine gave out on the first lap it was clear to Cogan that he had a chance to win. In a similar frame of mind was Foyt, who attacked as aggressively as Cogan defended until they put each other into the wall on the eighth lap. Neither man was hurt in the spectacular crash although Foyt delivered a menacing tongue-lashing when the pair met in the infield.

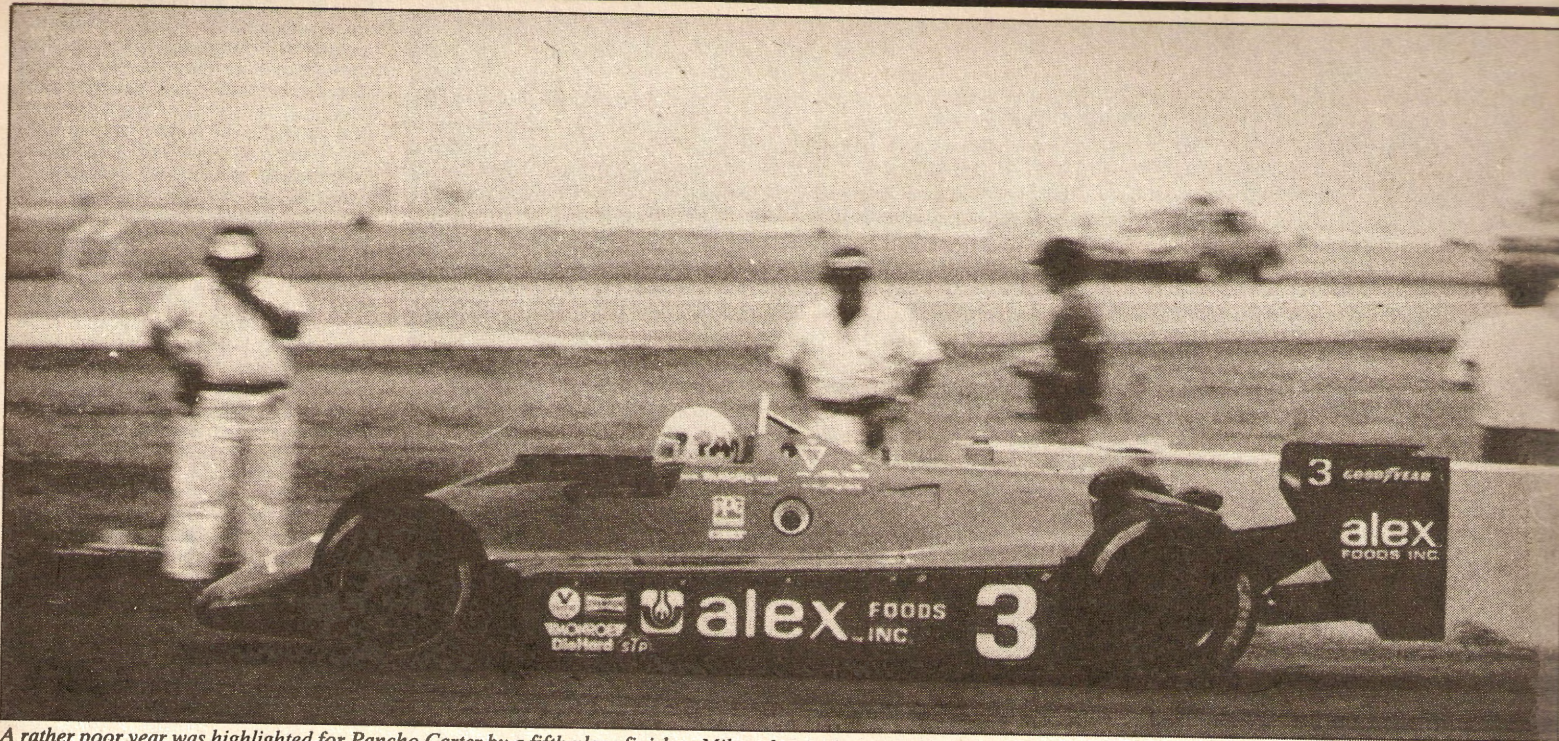
In the Phoenix season-closer Cogan turned-in one of his better short track drives of the year, finishing fourth behind Sneva, Mears and Andretti and ahead of Rahal. Since then he has moved into the Bignotti-Cotter team alongside Tom Sneva, and we feel sure that you'll hear a lot more about the soft-voiced but brash kid from Redondo Beach.

## Tenacious team-mates

From race day at the Indianapolis 500 through the final, fading laps of the Pocono 500 eleven weeks later, the STP-backed Patrick Racing team was able to match and threaten the Penske outfit in the Indycar championship stakes.

In the end, Mario Andretti and Gordon Johncock finished no better than third and fourth in the point standings but, for most of the summer, they kept their Wildcat Mk 8Bs in the heat of the battle, with Johncock ending an almost three-year winless streak for he and the team in superb style at Indianapolis. Two weeks

# Seasonal Survey



A rather poor year was highlighted for Pancho Carter by a fifth place finish at Milwaukee in August.

## Marvellous Mears

continued

later, he dominated the 150-miler at Milwaukee and after taking a well-earned fifth in the Cleveland airport race he scored another fine win in the Michigan 500 with Andretti following him home in second.

Thereafter, however, Johncock's luck turned sour and at the same time the Penske team began to rediscover its early-season form. Johncock dropped out of four races in a row during August and September because of problems with the team's transverse Weismann gearboxes. The last transmission failure guaranteed Mears the championship at Elkhart Lake and, the following week, Gordy lost second place as well when a turbine failure stopped him, and Rahal went on to win his second race of the season.

Nevertheless, the year was a very satisfying one for the hard-charging 45-year-old who has been racing Indycars since the last of the front-engined days in 1965. "I wouldn't trade this year for anything," he said the day before Mears sewed-up the championship. "It would've been nice to say I won the championship as well, but winnin' the races I did, the way I did — well, that means a lot, you know . . ."

The Wildcats were developments of the Williams FWO7-copy car called a Phoenix and, although they were sometimes able to match the PC10 Penskes for a single quick lap, they were usually no match for the PC10s over the course of a race. The Wildcats tended radically to change their handling as the fuel load was burned off and Johncock and Andretti kept themselves in the hunt by dint of hard driving, good pitwork and sharp work with tire stagger and combinations.

Andretti ran his first full Indycar season in eight years and usually ran right at the front in the superspeedway and road races although he was unable to record a single win. He lost particularly good chances in the startline crash at Indianapolis and again in the final pre-race practice session at the Michigan 500 when he crashed his pole-winning car and had to move to the back of the field with a spare chassis. Other good chances were lost to transmission failures in both

the Pocono 500 and the Elkhart Lake road race and an electrical fault at Riverside.

Mario's final tally for a progressively less happy year were four second places, a pair of thirds and third place in the championship. For 1983, he moves into the Newman/Haas/Budweiser/Lola combine while Bobby Unser — a hard-edged protagonist of Johncock — moves into Andretti's role as test driver for the Patrick team. Unser is busy testing the all-new Wildcat Mk 9 which has been designed by Gordon Kimble and features a transverse Weismann-style 'box built in-house

## Mr Herd's delight

After winning two races in 1981 in Tom Sneva's hands, cars from March Engineering managed to win five races in 1982 — more than any other *marque!* Sneva repeated with two more wins in 1982, while Indycar rookie Bobby Rahal also won a pair of races and Hector Rebaque added a fifth win for the cars from Bicester.

The 82C was little-changed from the very effective 81C and in the end 29 new chassis were built, providing the expanding world of Indycar racing with the best customer chassis since the Eagle of 1972-74. March also produced their own version of the Weismann transverse 'box and it was used for most of the races by three or four teams.

Most successful of the March-equipped teams was Jim Trueman's True-sports outfit with **Bobby Rahal** doing the driving. Motel chain owner Trueman has raced sports cars (U2L CanAm most recently) for many years and determined in the middle of 1981 to establish an Indycar team for the new season, with old friend Rahal overseeing some of the organisation in preparation for his Rookie season of ovals and Indycar racing.

With longtime Team VDS crew chief Steve Horne taking over the reins of the operation and designer Lee Dykstra joining the team as race/development engineer, the True-sports outfit quickly found form. The long-underrated Rahal was soon showing his talent as he was consistently the fastest rookie in practice at Indy and looked set for a fifth or sixth place finish in the 500 before his engine blew up within smelling distance of the flag. Five weeks later, however, Rahal

drove a well-judged race to score a first-race win at Cleveland and in most remaining races he was right in the hunt.

In September Rahal won his second race, beating Andretti home in a sprint race at MIS and clearly demonstrating his growing oval-track skills. He also led for a long way before running out of fuel at Elkhart Lake and backed-up his pair of wins with one second place result at Milwaukee in August and a trio of thirds. That was enough to ensure the 29-year-old Chicagoan and his all-rookie team second place in the points as well as thoroughly sweeping the Rookie of the Year ratings.

One of the earliest March Indycar customers was veteran crew chief George Bignotti, who has the distinction of having prepared more race winners than A J Foyt has driven. Bignotti's cars had won 82 Indycar races going into the 1982 season, his second in company with new partner Dan Cotter. Texaco joined the Bignotti-Cotter team as primary sponsor near the end of 1981 and 1977-78 USAC champ **Tom Sneva** continued as the number one driver with SCCA CanAm Champion **Geoff Brabham** joining him in a second car, sponsored by Pentax cameras.

Sneva is a superb speedway driver and he showed his stuff in 1982 by winning two short track races and pushing himself into contention in most superspeedway races before running into engine or gearbox troubles. His wins came at Milwaukee in August and even more convincingly in the Phoenix season-closer where he simply outpaced the field, Mears included, to win the race for the third year in a row. At Indianapolis he was on the pace with Mears and Johncock for most of the distance, only to take on an incorrect tyre combination on his last pit stop and then have his engine blow up with little more than two laps to go. He still managed to scrape home in fourth place!

For much of the year Sneva was at odds with Bignotti, complaining regularly about the lack of a test programme. In September and October he was looking hard for a new seat although by season's end he and Bignotti were trying to make peace and plan for a new assault in '83, most probably with Theodore/Ensign chassis and definitely with Kevin Cogan in the second car.

Last year Bignotti's second car did not

serve Geoff Brabham very well. The car usually looked very tatty and was visibly a handful in most races. The taciturn Brabham rarely had a chance to shine in either qualifying or races and was also looking hard for a new seat by summer's end. Brabham's best result was a good third in the September sprint race at Michigan and a dogged fourth with a failing engine in the Pocono 500. At the time of writing Geoff's plans for '83 were unknown although CanAm champion entrant Rick Galles has expressed a lot of interest in running him in his new Eagle-equipped team alongside Al Unser Jr.

Indy Car rookie **Hector Rebaque** started six races in 1982, including the Indy 500 where he ran well and was looking like a top 10 finisher before being stopped by a small refuelling fire. Rebaque was involved in a fairly big crash with A J Foyt during a restart in the Michigan 500 and thereafter he decided to stay away from oval tracks for the rest of the season. He started the two remaining road races on the calendar, however, and after crashing at Riverside he drove by far his best race of the year to score a lucky but not undeserved win.

Rebaque drove for a new March-equipped team owned by the Chicago-based Forsythe brothers who had come into Indycar racing the previous year as Scott Brayton's sponsor. The Forsythes also ran **Danny Sullivan** at Indianapolis and in two other races before falling-out with Sullivan's sponsor Garvin Brown. Sullivan was fast and impressive at Indianapolis before spinning into retirement in the closing stages of the 500. Earlier he had finished a distant but dogged third in his Indycar debut at Atlanta.

**Al Unser Jr** also made his Indycar debut in a Forsythe 82C, qualifying 10th and getting as high as third at Riverside before radiator and engine problems slowed and then stopped him. He was still classified fifth in the attrition-riddled race and is plainly a mighty prospect for next season.

One of March's most prized customers is **A J Foyt** who gave the company their first Indycar win in a poorly-supported USAC race at Pocono in 1981, and has raced a March in the seven other starts he's made since then. In four of Foyt's six 1982 appearances he was smack on the pace. At Indianapolis he was on the

outside of the front row and led the first 30 laps of the race. He also looked good in the Michigan 500 before crashing with Rebaque and was a real tiger at the same track in September when he and Cogan took themselves into the first turn wall. His best finish was in the June race at Milwaukee where he drove beautifully to finish second, going the distance on one fuel stop rather than the two-stop system used by everyone else. He'll continue in '83 with two new 83Cs.

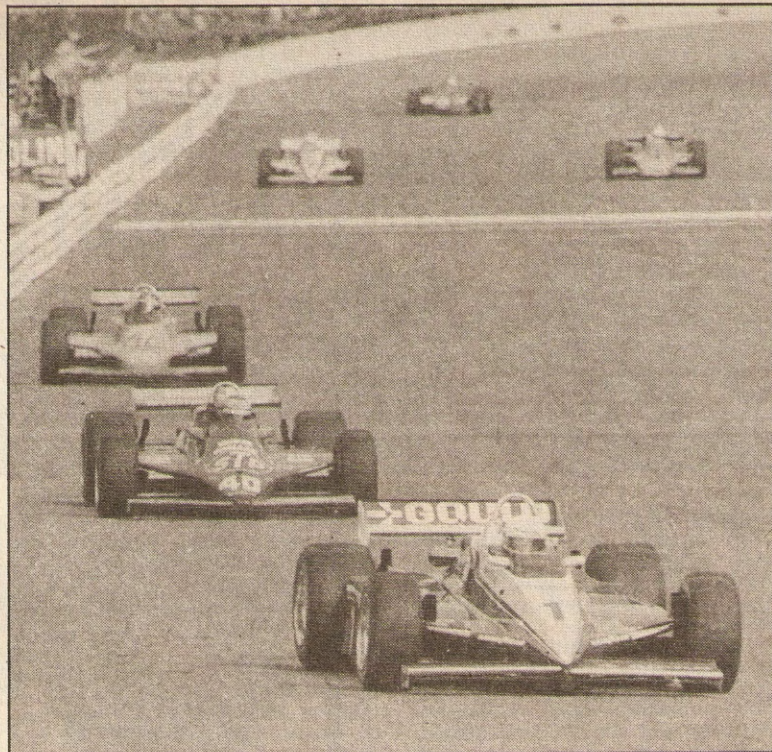
**Johnny Rutherford** also drove a March in the last half of the '83 season and at the time of writing it looked as if he will continue to race Marches as the Forsyth's number one driver in '83. JR started the year past with two of his 1980 championship-winning Chaparral 2Ks but after struggling into fourth place in the season-opener and qualifying a distant 12th at Indianapolis, the message was clear that the well-developed, but three-year old John Barnard design was simply out of date. After crashing in the Cleveland 500, Rutherford appeared at the Michigan 500 in a hurriedly-built 82C and the Chaparrals were never seen again. Unfortunately the last half of the Chaparral team's season was littered with engine failures and crashes, including a huge collision with the first turn boilerplate during the Pocono 500.

Rutherford had been challenging Mears for the lead when a cut tyre suddenly exploded and pitched him headlong into the wall. Once again the crash was something of a testament to the strength of current Indycar monocoques as Rutherford was lucky to escape with no worse injury than a broken finger. His best result of the year came two weeks later when he drove another 82C into third place at Riverside, his pace reduced to a crawl at the end with both engine and gearbox expiring rapidly.

In many ways it was not surprising when Jim Hall announced in the middle of November that his team would not race in 1983. Hall has always run a fairly small team and without the proper fabrication facilities to develop a contemporary racing car he was unable to respond to the rapid escalation in new materials and construction techniques. The Texan's interest seems also to have faded in the past two years and we wonder if he will return as he says he hopes to...

After switching to a March chassis, the Chaparral team worked closely with Doug Shierson's outfit which was making its first foray into Indycars after many years in Formula Atlantic and before that in F5000 and the CanAm. Based in Michigan, Shierson's well-run team prepared a pair of 82Cs for former F. Atlantic champion **Howdy Holmes** and after sitting out the 1981 season it took Holmes three or four races to get back into the groove. By mid-season he was beginning to show some form and in the last part of the year he often pushed himself into touch with the leaders. Holmes will continue with Shierson in '83 and could establish himself as a genuine frontrunner.

Other notable March drivers in 1982 included **Mike Mosley**, **Pancho Carter** and **Tony Bettenhausen Jr.** After the works/AAR Eagle team closed shop Mosley joined the Kraco Car Stereos team which often employed Robin Herd as at-the-track development engineer. The team has since taken delivery of the first 83C chassis. Carter continued with Alex Morales's small team which did the early development on the March gearbox. The Morales team had no luck at all in 1982 however with Carter's only real result coming at Indianapolis where he finished a lap down in third place. Bettenhausen took 10th place in the point standings, thanks to a series of consistent performances with a pair of



*The 1982 Champion Mears leads two of his closest challengers Andretti and Johncock. 82Cs. Brother Gary also drove for his younger sibling's team in a couple of races.*

Also March-equipped was the Wysard team which ran their 82C for a variety of drivers including **Hurley Haywood**, **Bob Lazier**, **Johnny Parsons Jr.**, **John Paul Jr** and **Derek Daly**. The last two made impressive Indycar debuts in the Wysard March while **Josele Garza** drove both an 81C and an 82C in the early part of the season before reverting to a Penske PC9 for most end-of-season races. **Don Whittington** drove his 81C to sixth place at Indy despite engine problems and was on the outside of the front row in his only

*Gordon Johncock was a force to be reckoned with throughout the year in the Wildcat Mk8.*

other Indycar appearance, in the Michigan 500. Brother **Bill** was on the outside of the second row at Indianapolis with his 81C in his only Indycar start of the year.

**Gordon Smiley** started one race with the Fletcher Racing 81C before crashing to his death during Indianapolis qualifying. After making the field in 1980 and '81 Smiley was anxious to do well for his new sponsor Intermedics and his death brought a sad end to an often flamboyant career. Super Vee graduate **Jim Hickman** started four races in the Rattlesnake Racing 81C before a stuck throttle carried him to his death at Milwaukee. The 42-year-old Hickman

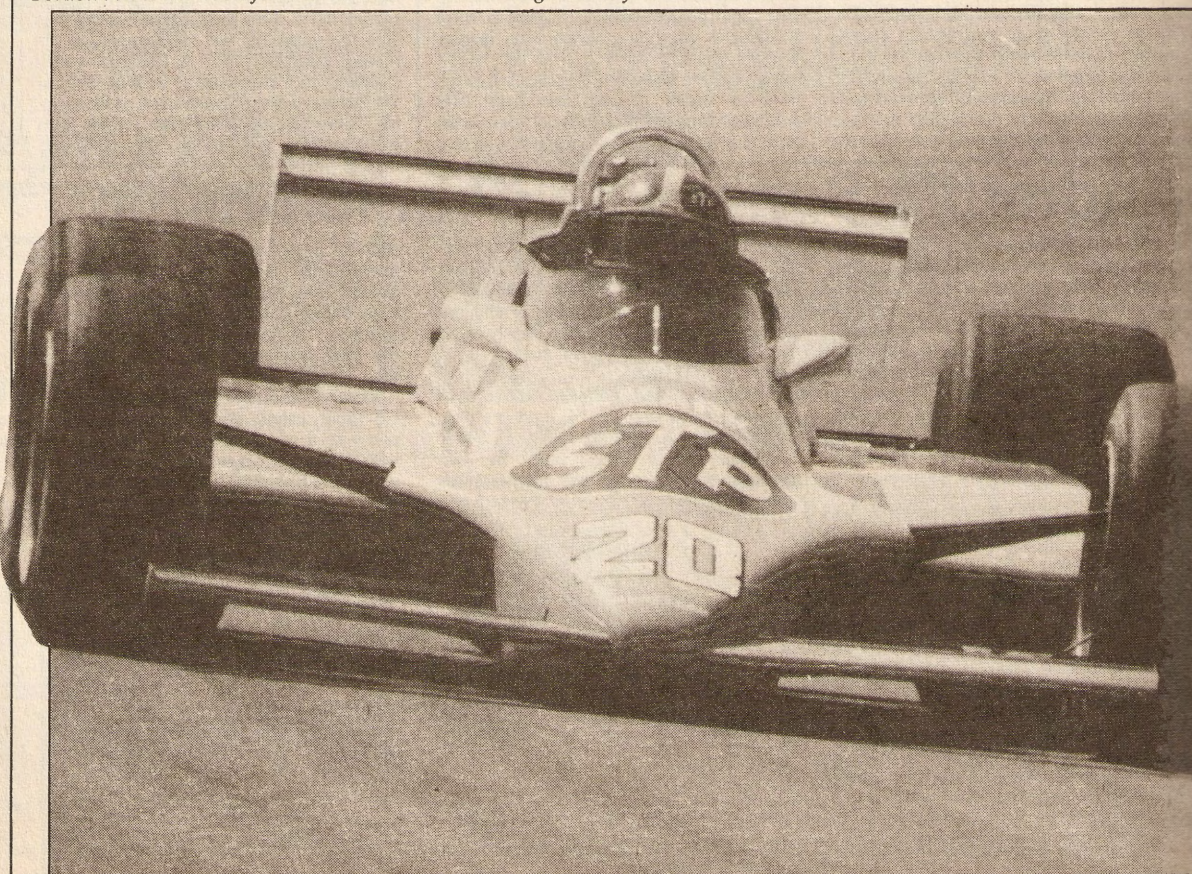
suffered massive head injuries after taking a solid blow from a retaining fence post mounted atop the wall. At Indianapolis Hickman had finished a dogged seventh, fighting a fading gearbox to make the finish and pick-up the race's Rookie of the Year award.

The Florida-based Rattlesnake team reappeared for the last two race of the year with **Dick Ferguson** in the cockpit of the team's well-built March-copy chassis. Former Eagle/Interscope designer Roman Slobodinskyj joined the team at season's end and will be designing a new car for the team.

## Other Constructors

No other Indycar manufacturer was able to challenge March's production capabilities in 1982. The latest Eagle was certainly a match for the March chassis in terms of performance but financial dramas at All-American Racers meant that neither works team nor production facilities were able to operate very well. AAR boss Dan Gurney also made an admitted mistake by trying to develop a 3.4-litre turbocharged Chevrolet V8 for his own team. Major problems with the turbine and the engine's oiling system created a long string of blow-ups and **Mike Mosley** was never able to attempt a qualifying run at Indianapolis so that Gurney released him from his contract.

Meantime Eagles powered by normally-aspirated, 5.8-litre Chevrolet V8s were driven in most races by **Herm Johnson**, **Tom Bigelow** and **Greg Leffler**. **Pete Halsmer** drove his Arciero Eagle with a normally-aspirated engine in three races and qualified at Indy with a turbo Chevy V8 built by the Champion Spark Plug Co. **Mike Chandler** showed promise in three appearances with a 5.8 Chevy-powered Eagle while **Dennis Firestone** also drove a normally-aspirated version of an Eagle in two races. **Bill Jamieson's** Cosworth-powered Eagle appeared four times with **Chip Mead**, **Chris Kneifel** and **Jacques Villeneuve** doing the driving. A few 74-type Eagles also appeared on rare



# Seasonal Survey

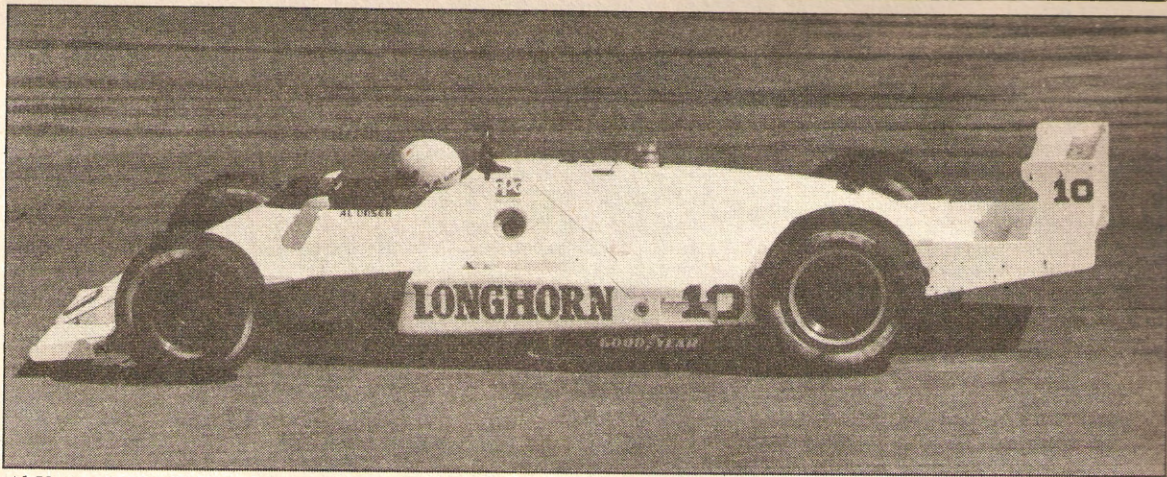
## Marvellous Mears continued

occasions while next year could see an Eagle revival with Al Unser Jr taking the wheel of a Cosworth-powered car run by Rick Galles.

A handful of works cars from the Penske and Patrick teams were sold during the winter of 1981-82 but nobody so equipped was very successful. Roger Mears, older brother of Rick, started the year in the Machinists' Union PC9B in which he only just scraped into the field at Indy. The 9B was later written off at Cleveland and Roger persevered with a PC7 for most of the season. He wound up ninth in the championship and at the season-closing race he debuted the first of two PC10s that the Machinists' Union team will run in '83. After finishing second in the championship with a works PC9B in 1981, Bill Alsop ran a 9B as a privateer last season. He failed to qualify at Indianapolis and generally had a rough time until the last few races of the season. Reliability kept him in the top ten for most of the year although he ultimately finished 11th in the points.

A couple of 9Bs were run with even less success in the early part of the year by the Kraco Stereos team for Vern Schuppan and Bill Vukovich while a 1980-type PC9 was driven by Josele Garza in half of the races. Young Garza hired controversial 1981 Indy 500 winner Bobby Unser to run his team in 1982 and the team juggled a pair of Marches as well as the Penske. Unser and Garza had a hard time communicating and were often at odds with each other. Reliability was not strong and Garza's performances were of the up and down variety as he smilingly endured a year full of learning experiences. By the middle of the season it was clear that Unser was looking to race again in 1983 while Garza's future has become clouded by the deep recession in his homeland.

The odd Penske PC7 also appeared last season with Gary Bettenhausen squeezing a couple of results out of a Chevy-powered example. Scott Brayton shared a conventional PC7 with Car & Driver man Pat Bedard and also ran a Wildcat Mk8 in a couple of races. Another Mk8 Wildcat was run by Jack Rhoades' small team for FF/Super Vee graduate Chip Ganassi who showed well on occasion and was the fastest Rookie qualifier at Indianapolis at nearly



Al Unser persevered with the Longhorn team for three years without a victory.

198mph.

Most frustrated team owner of 1982 had to be Bobby Hillin who continued for the third year to field Al Unser Sr, this time in a third-generation Longhorn chassis. Former Eagle designer John Ward had joined Hillin in June of '81 and for the new season Ward produced the interesting, BLAT-type LR03 which was designed in association with the Williams GP team and converted to a more conventional "tunnel car" in the middle of the season. Towards the end of the summer however Hillin determined that the slowdown in the oil/natural gas business was so affecting his wildcatting operations that he couldn't afford to continue to run his team in 1983. A week before he made the announcement that he was immediately closing down his racing team, Hillin came the closest he'd ever been to winning an Indycar race when a fuel-less Unser trickled to a stop halfway through the last lap at Elkhart Lake while in firm command of the race!

Another interesting design was the Interscope "batmobile" which was originally designed and built in 1979/80. Delayed initially by the politics surrounding the Porsche Indycar engine, the car finally appeared in 1981. With Cosworth engines behind him Danny Ongais quickly showed that the Interscope chassis was a real contender until a massive crash during the Indy 500 sidelined Ongais for almost nine months and sidetracked the team's promising

Indycar project. In 1982 the cars appeared only twice with a wheel-bearing failure at Indianapolis putting Ongais into the wall again and causing he and team owner Ted Field to close down their Indycar operation for the rest of the year.

The typical 1982 field was completed by Dick Simon who drove a couple of different Cosworth-powered cars built by veteran Indy Car crew chief A J Watson. Although the cars lacked reliability they were certainly strong as Simon proved when he emerged unscathed from a multiple flip at Riverside. The hardest-trying Indycar driver of the year meanwhile, had to be Phil Krueger who is finally beginning to attract attention after struggling in most races with an ancient car called a Kingfish-Chevy. Given a proper car and some track time Krueger could make a name for himself.

## Trade Technicalities

In closing we should note that Goodyear tyres and Cosworth engines dominated the results in 1982. Goodyear has of course been the unchallenged tyre supplier to all Indycars since 1975 while Cosworth's 2.65-litre DFX turbo has steadily become *de rigueur* since its introduction in 1975. A DFX powered every winner this year as well as 90% of the field and Tom Sneva's win at Phoenix in November marked the DFXs 80th Indycar win.

A lot of time and development was spent on turbocharging last year with Warner-Ishi and IHI blowers challenging the more accepted units from Schwitzer and Airesearch. Cosworth did a lot of their own work on improving their "monoflap" induction system while Bosch began to threaten Champion's grip on the ignition/electronics market.

At the driven end of the cars there was an active gearbox market shared by Hewland, Weismann and March. The Hewland units tended to be the most reliable (VG400 used by Penske and a DG300 used by Rahal), while those from Weismann were certainly more varied and innovative.

Ever-stiffer springing and other peculiarities of ground-effect made shock absorbers an area of intensive study in 1982. Monroe's longtime grip on the market was eroded by air-filled shocks from Koni and Fox, both of which offered much improved rebound adjustment. The Penske team used Konis in the first half of the season but switched to Fox units for the second part of the year.

Finally we note that in 1983, in company with Mr Frasco's expansion of his "Big Event" concept, there will be a substantial increase in the number of road races. Five of them — Cleveland, Elkhart Lake, Riverside, Mid-Ohio and Laguna Seca — will make for even better chances for the many road racers who are beginning to challenge the old guard.

## Andretti's Super Vee Championship

The Bosch/VW Super Vee Championship continues on a very healthy basis in North America, with five races run as CART supporters and the SCCA doing the organisation.

The convincing winner of the 1982 title was Michael Andretti, 19-year-old son of Mario, who ran his first FSV season following a couple of years of Formula Ford. Michael drove an '81 and an '82-spec Ralt RT5 run by Frank Arclero's team under the direction of Pete Halsmer, who

had finished second to Al Unser Jr in the '81 Super Vee series. The cars were usually the best in the field and young Michael made full use of them by winning six races. He suffered three mechanical DNFs and was otherwise beaten only twice.

Ed Pimm was Andretti's only championship challenger, the FF graduate giving a first-rate account of himself in an RT5 sponsored on a limited basis by Jim Trueman's Red Roof Inns. Pimm was a

real force in most races and won the mid-summer event at Milwaukee. At Elkhart Lake he was completely untouchable before gearbox troubles intervened and with Trueman's full support in '83 he is the clear favourite to take next season's title.

Most impressive of the rest was 18-year-old Davy Jones, who improved steadily and was a real contender in the second half of the year. His British F3 experiences seemed to give him confidence and he not

only scored an excellent win at Laguna but also finished third in the championship.

Other winners in 1982 were Mike Miller, Jerril Rice and Peter Moodie. Ex-drag racer Miller won the super-fast drafting match at Michigan while Rice scored a good win in the rain at Detroit. Jamaican Moodie entered only the road races and scored a surprise win in Bertil Skollenskog's Anson at Elkhart Lake in July. That was the only defeat for the all-conquering Ralt RT5.

### 1982 ROBERT BOSCH/VW SUPER VEE CHAMPIONSHIP

	Mar 28 Phoenix	May 26 Charlotte	Jun 5 Detroit	Jun 13 Milwaukee	Jul 24 Elkhart Lake	Aug 1 Milwaukee	Sep 12 Mosport Park	Sep 26 Michigan	Oct 3 Riverside	Oct 10 Laguna Seca	Nov 6 Phoenix	Total points
1 Michael Andretti (USA) ..... Ralt RT5	20	20	—	2	14	20	20	—	20	16	20	152
2 Ed Pimm (USA) ..... Ralt RT5	8	9	—	20	12	16	3	16	14	2	16	116
3 Davy Jones (USA) ..... Ralt RT5	—	—	—	10	16	14	16	5	16	20	10	107
4 Mike Miller (USA) ..... Ralt RT5	—	14	10	6	7	10	4	20	—	14	14	99
5 Rick Talbot (USA) ..... Ralt RT5	—	12	—	16	8	8	—	10	10	5	8	77
6 Greg Atwell (USA) ..... Ralt RT5	10	11	9	14	—	—	14	7	—	—	—	65
7 Mike Rosen (USA) ..... Ralt RT5	11	6	14	12	6	—	1	2	—	9	—	63
8 Brad Murphey (USA) ..... Ralt RT5	7	4	11	5	—	6	10	6	12	—	—	61
9 Jerril Rice (USA) ..... Ralt RT5	14	—	20	8	9	—	7	—	—	—	—	58
10 Stan Fox (USA) ..... Ralt RT5	3	—	—	—	11	12	—	9	11	11	—	57

Points are scored on the basis of 20-16-14-12-11-10-9-8-7-6-5-4-3-2-1 to the top 15 finishers.



Michael Andretti — Champion.



*Similar in appearance to its predecessor but beneath the skin things have changed quite a lot for Volvo's baby.*

## Volvo's new baby

JOHN BOLSTER reckons that solid engineering excellence has more appeal than spectacular appearance.

*A small spoiler adorns the lip of the hatchback for higher speed stability.*



Volvo cars have built up an enviable reputation in this country. Even their greatest admirers could scarcely call them beautiful, but they are as solid as they look. If you are going to have a head-on collision, have it in a Volvo.

The larger Volvo models are perhaps becoming a little old-fashioned in their chassis design, but when the manufacturers extended their range downwards by taking over the DAF, they retained the De Dion rear axle of the Dutch car. This gave a better ride than the live axles of the bigger cars, and when Volvo deleted the belt drive, they placed their new gearbox at the rear, combined with the final drive. With a forward-mounted engine, this gave an ideal weight distribution; Porsche and Alfa Romeo can't be wrong! The car was just what the customers wanted and it sold remarkably well.

Nevertheless, the performance of the 340 series was not particularly exciting for, although the handling was delightful, the 1397cc Renault engine had a fairly substantial car to pull. Now, Volvo have altered all that, for in their 360 series they have installed their own 2-litre overhead-camshaft engine in virtually the same car. Furthermore, in the 360 GLE, they have mounted a fuel-injection version of the same power unit, with a claimed DIN output of 115bhp, plus lowered suspension and low-profile tyres.

The new Volvo gearbox gives five speeds, fifth being an overdrive cruising ratio with fourth as the performance gear. The front suspension is orthodox Macpherson, with rack and pinion steering, and the servo-assisted disc/drum brakes are on split circuits.

In appearance, the car is not so tank-like as the larger

Volvos and the high standard of construction can be judged by such things as the fit of the doors, while the finish is first class. The interior is attractive, with cloth upholstery, and the presence of a large rev-counter on the instrument panel hints at the slightly sporting character of the vehicle, to which the aerodynamic aids contribute. Behind a 6ft driver, a rear passenger still has reasonable leg room and the seating is comfortable for all the occupants. In winter, a driver relaxes into warmed cushions and the equipment includes wash/wipe for the headlamps.

## Driving impressions

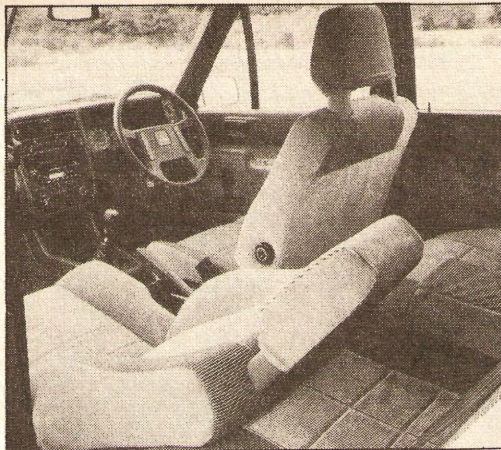
On taking over the 360 GLT, I was at once impressed with the pleasant operation of all the controls. The light and responsive steering gives a good sense of mastery, the relationship of wheel, seats and pedals seeming to suit drivers of widely varying heights. The fairly short gearlever is remote from the gearbox at the rear of the car, but it selects the ratios with ease and certainty. Similarly, the brake pedal is not too sensitive in action and there is no sign of fading during fairly hard driving.

Plenty of torque in the middle ranges ensures that the car is flexible and pulls well on the higher gears. In normal driving the engine is fairly quiet, only becoming obtrusive towards maximum revs. The Volvo accelerates well through the gears, but is perhaps not quite such a ball of fire as I had expected with a power output of 115bhp. Maybe it is heavier than some of its livelier competitors, but the maximum speed of 112 mph is certainly satisfactory. This was obtained on fourth speed, but although fifth will not record quite such a high velocity it gives effortless cruising at around 100 mph.

The handling is just about neutral, with a suspicion of understeer to ensure high-speed stability. Aerodynamic stability is also achieved and the car runs straight in side winds, in a manner reminiscent of good front-wheel-drive machines. The lowered suspension of the GLT avoids excessive roll on corners and though the ride is by no means soft, the uprated, gas-filled dampers do not make the Volvo uncomfortable.

I have driven in Sweden during the winter and I can state that the low ambient temperature can literally make the heating systems of some popular cars inoperative. It is not surprising, therefore, that one never needs to turn the heating 'full on' of this Volvo. It is excellent, however, that the ventilation system has no connection with this abundant supply of hot air and cool breathing air is always available, even though the heater has been programmed to burn off one's socks. Italian manufacturers please note.

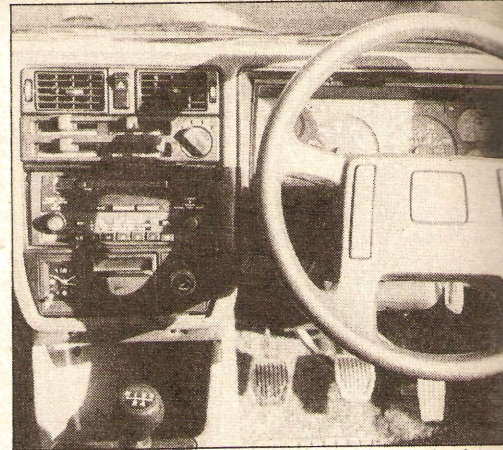
Volvo cars are not cheap, for their standard of *Not so tank-like but the family resemblance is definitely inherited in the 360GLT.*



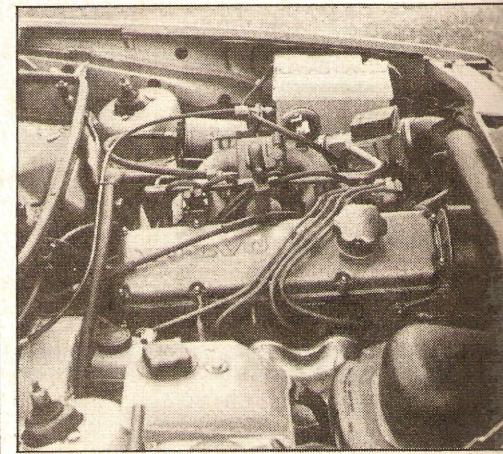
Above: The interior is well designed with comfortable cloth seats and ample leg room. Below: There is also plenty of room in the rear especially with the back seat folded down.



engineering costs money. This new version is more fun to handle than any previous model and the front engine — rear transmission design has many racing precedents. There is not the slightest doubt that it will be a best-seller, but this achievement will be due less to its technical merits than to the name on the front. Perhaps the Volvo success story stems from those huge Volvo lorries that one meets on the road, but it proves that solid engineering excellence has a greater appeal than spectacular appearance or the brief fame from the circuits.



Above: A well laid out instrument panel gives the driver good indication of his performance. Below: Volvo's own 2-litre overhead-camshaft engine provides the power.



## VOLVO 360 GLT £6,548

### Specification

Cylinders/capacity	4 in-line/1986cc
Bore x Stroke	88.9 x 80mm
Valve gear	Toothed belt, single OHC
Compression ratio	10:1
Fuel system	Bosch LE-Jetronic fuel injection
Power/rpm	115bhp at 6000 rpm
Torque/rpm	118lbfft at 3600 rpm
Gear ratios	0.83, 1.0, 1.37, 2.16, and 3.71:1
Final drive	Spiral bevel 3.64:1
Steering	Rack and pinion
Brakes	Servo-assisted split-circuit disc/drum
Wheels	Light-alloy 5½J x 14ins
Tyres	185/60HR 14
Suspension	
(F) Independent Macpherson with anti-roll bar	
(R) De Dion axle on single-leaf semi-elliptic springs.	

### Dimensions

Wheelbase	94.3ins
Track (F/R)	53.9/55.1
Length	169.3ins
Width	65.4ins
Weight	22.4cwt

### Performance

Max in fifth	108mph
Max in fourth	112mph
Max in third	85mph
Max in second	55mph
Max in first	31mph
0-30mph	3.1secs
0-50mph	7.4secs
0-60mph	10.5secs
0-80mph	19.6secs
0-100mph	38.0secs

### Fuel

Urban, 56mph, 75mph, 23.2mpg, 43.5mpg, 32.1mpg	
Testing	23 to 30mpg





The exciting new BMW 7-Series, now available with the new 4-speed ZF automatic transmission unit.

## Refined 7-Series

BMW have just announced their improved 7-Series saloons for 1983. The big news, however, is that these cars may be obtained with the new ZF automatic transmission, type 4 HP 22, which incorporates a lock-up clutch for the fluid torque converter and an overdrive. For the first time, an automatic gives better overall fuel economy than a 5-speed manual gearbox.

Those readers who would like to study the technical details of the 4 HP 22 may care to turn back to AUTOSPORT of December 17, 1981, in which I had an article that included a large drawing making all the details clear. For the present, suffice it to say that the popular 3-speed automatic transmission may well achieve better fuel economy than a manual 'box under urban conditions, because the torque converter is ideally suited to such driving. However, at high cruising speeds the torque converter is like a slipping clutch, wasting petrol and reducing the maximum speed potential. Furthermore, there is no high cruising gear so engine revs are unnecessarily

high, causing noise and wear as well as increasing fuel consumption.

The new 4-speed transmission, as installed in the 7-series BMW, gives the best of both worlds. In town traffic, it behaves like a normal 3-speed automatic, and also during rapid acceleration. When the cruising speed has been reached and the driver eases his pressure on the accelerator pedal, an additional overdrive gear at the rear of the housing comes into action, while a friction clutch 'short-circuits' the torque converter. Extra pressure on the pedal at once frees the clutch, causing the torque converter to resume its normal function, and if further acceleration is required an automatic change from overdrive to direct drive will be made.

Compared with a manual gearbox, the fuel economy is improved by 5.4 per cent in city driving and 2.5 per cent at a steady 56mph. The average fuel consumption is also reduced by 13 per cent compared with the 3-speed automatic. Because the ZF transmission offers less friction and oil-drag than a 5-speed manual 'box, and

also because selection is automatic, it has been possible to choose a step-up ratio for the overdrive of 0.728:1 instead of 0.810:1. In the case of the 735i, this means 31.1mph per 1000rpm on the automatic overdrive instead of 28mph per 1000rpm on fifth speed of the synchromesh gearbox.

In addition to the new transmission, some 30 improvements have been made to the 7-Series cars. These include body changes that reduce the aerodynamic drag by 9 per cent, which cuts the average fuel consumption by 6 per cent. Handling has been improved by reducing the angle of trail of the rear suspension arms and fitting a stouter anti-roll bar in front.

The three alternative engines have undergone some development and they all have Bosch electronic fuel injection. The latest models are: 728i (2788cc, 184bhp), 732i (3210cc, 197bhp), and 735i (3430cc, 218bhp), all with 6-cylinders in-line, the 735i having a claimed 135mph potential.

Official fuel consumption figures prove that the cars fitted with the ZF

4-speed automatic transmission are more economical than those with the 5-speed manual under all conditions. Typical are the results obtained with the 735i (automatic figures in parentheses): 56mph 34.8mpg (35.7mpg), 75mph 28.2mpg (30.1mpg), urban 16.8mpg (17.6mpg).

It is astonishing that the prices of the cars, when fitted with the ZF 4-speed automatic transmission, are identical to those of their predecessors with 3-speeds: 735i £18,405, 732i £16,055, 728i £14,325. With Getrag- 5-speed synchromesh gearboxes the prices range from £18,045 to £13,965.

### Road impressions

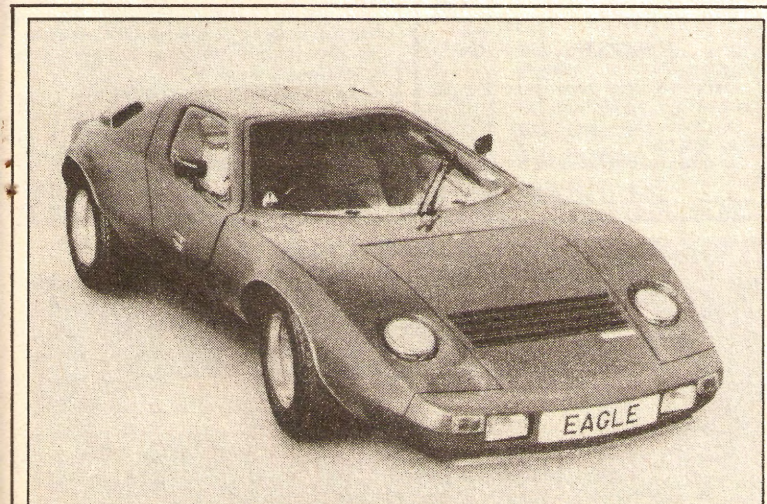
On the road, the most impressive feature of the new 7-Series BMWs is the incredible smoothness of the overdrive transmission. It is extremely interesting to watch the changing relationship of the speedometer and the rev-counter, but there is never the slightest jerk to indicate that a gearchange has taken place. During gentle driving, the overdrive fourth speed is engaged at 30 or 40mph, but one cannot tell at what point the friction clutch locks out the torque converter. The kick-down is very rapid when a sudden burst of acceleration is required for overtaking.

There is elaborate instrumentation and a gauge gives a continuous reading of the fuel consumption, while an on-board computer can answer almost any question by merely pressing buttons. The seats are electrically adjusted in all directions, even the head rest rising and falling on command.

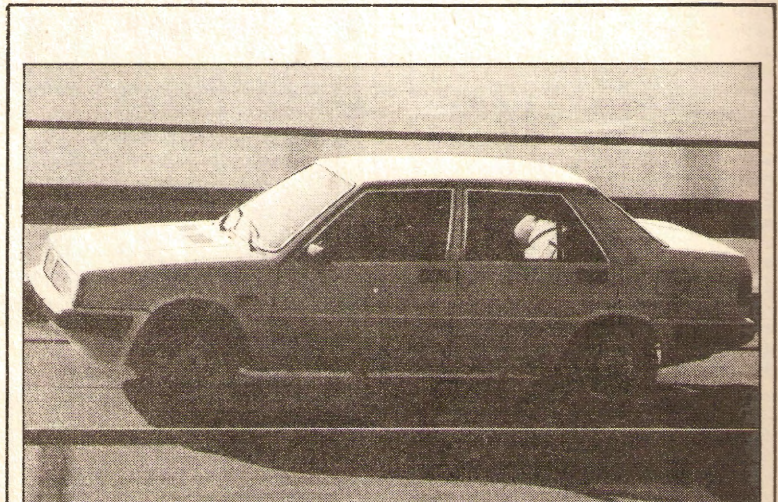
Both the ride and handling show a distinct improvement, my sole criticism concerns the stability of the car in gales or wind on the exposed autoroutes of France. I am glad to say that the heating and ventilation are on separate circuits and can be adjusted to a nicety. Among the many improvements, the more effective sound insulation must earn top marks.

The BMW 7-series cars are spacious and luxurious machines of the highest class. The spectacular ostentation that may attract the wrong sort of attention has been avoided and the cars look less aggressive than they did. It is in refinement that the big BMWs show the greatest progress and such sound as they make is the pure song of an in-line 'six', than which there is nothing nicer. ■

JOHN BOLSTER



Since the launch of the Eagle SS1 VW based kit car in 1981, the company has continued to refine the car and has now produced the series 2 version, in association with Dutton cars. So for the price of £1545, the exciting Eagle SS2 kit car is available, ready to have either a VW, Ford or Porsche power unit dropped in.



The new Lancia Prisma is a four door saloon of three box configuration. Slotting into the range just above the Delta, the Prisma has three alternative engine sizes of 1300cc, 1500cc and 1600cc, the latter a twin-cam unit delivering 105bhp. More details next week.





## International Races

### BAY PARK PACIFIC

## No ice on Berg

Allen Berg, a 21-year-old Canadian, who impressed during last year's American Atlantic series while driving an uncompetitive March for Doug Shierson, won both opening heats in the New Zealand International Formula Pacific Championship at Bay Park, Mount Manganui last Sunday in a Ralt RT4, leased from New Zealander Graeme Lawrence. He led each of the 38-lap heats from start to finish, although he was pushed hard in the second race by fellow North American Mike Rosen.

Rosen, who drove in both the Atlantic and Super Vee series in America last year as well as taking in the New Zealand series and having a few outings in the British Formula 3 Championship, looked on good form as he set fastest qualifying lap but threw away the advantage of pole position by making a poor start in the first heat. Berg made no mistakes, however, and despite this being his first outing in a Ralt, soon pulled out a clear lead. Rosen managed to climb back up to third place but was unable to find a way past Kiwi veteran Kenny Smith, who drove a fine race in the same RT4 as had been used by Jacques Laffite in the recent Australian Grand Prix. Just 0.45sec separated the pair at the finish with West German F2 driver Christian Danner a further 8secs adrift in fourth place in yet another RT4. Young Paul Radisch, winner of the first round of the National Championship only three weeks previously was slightly off the pace this time out but still claimed a creditable fifth after a good dice with Australian Ralt importer Graeme Watson.

The second heat saw Berg make another superb start, although this time Rosen stayed with him and pressed hard for the entire race. The American again set fastest lap in a race that was run at a much faster pace than the first, but Berg made light of the pressure and held on to win by 0.8sec.

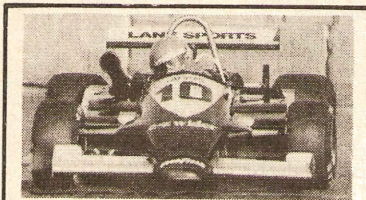
A minor bush fire had started behind one of the main spectator areas while the second heat was in progress and although this was soon brought safely under control, smoke did drift across onto the circuit and make visibility rather difficult for some laps. Soon after this had cleared, however, Radisch and Danner, who had been dicing hard for third place, tangled their RT4s, forcing out the local man with a damaged wheel. Danner was able to resume and finish well clear of a surprisingly subdued North American Formula Atlantic Champion, New Zealander Dave McMillan. His car had

been rebuilt since its recent Pukekohe crash but all was obviously not so well in the handling department.

American Norm Hunter also failed to live up to expectations and was never seriously in contention, while fellow countryman Hubert Phipps was denied the chance to show at all after flipping his Tiga in a nasty accident during the morning warm-up. Both rear corners were knocked from the car although Phipps was unhurt.

Kenny Smith was unfortunately denied the chance to try and improve upon his first heat second place when unspecified mechanical problems forced him into the pits, although hopefully all will be readied in time for this coming Saturday when the series continues at Pukekohe for the NZ GP meeting.

PETER GREENSLADE



Mike Rosen set fastest lap.

### BAY PARK (NZ) Jan 2 Just Juice Formula Pacific Championship, round 1 2 x 38 lap heats — 101.2 miles

Heat 1: 1, Allen Berg (Ralt RT4), 34m 49.21s, 87.192mph; 2, Kenny Smith (Ralt RT4), 34m 59.00s; 3, Mike Rosen (Ralt RT4), 34m 59.45s; 4, Christian Danner (Ralt RT4), 35m 07.61s; 5, Paul Radisch (Ralt RT4), 35m 12.80s; 6, Graeme Watson (Ralt RT4), 35m 13.50s; etc.

Fastest lap: Rosen, 54.28s, 88.315mph.

Heat 2: 1, Berg, 34m 43.30s, 87.439mph; 2, Rosen, 34m 44.10s; 3, Danner, 35m 01.53s; 4, Dave McMillan (Ralt RT4), 35m 21.97s; 5, Charlie O'Brien (Ralt RT4), 35m 22.53s; 6, Grant Campbell (Ralt RT4), 37 laps; etc. Fastest lap: Rosen, 54.07s, 88.658mph.

### IMSA CAMEL GT ENDURANCE CHAMPIONSHIP

#### Final positions

1, John Paul Jnr (Porsche 935/Pontiac Firebird), 146pts; 2, Terry Wolters & ML Speer (Porsche 935), 140; 4, John Paul Jnr (Porsche 935), 138; 5, Bob Akin (Porsche 935), 111; 6, Derek Bell (Porsche 935), Jim Downing & John Maffucci (Mazda RX-7), 94; 9, Roger Mandeville & Amos Johnson (Mazda RX-7), 80; etc.



John Paul Jnr — IMSA champion.

### IMSA CAMEL GT CHAMPIONSHIP

#### Overall final positions

1, John Paul Jnr (Porsche 935/Lola T600), 235pts; 2, Ted Field (Lola T600), 167; 3, John Paul Jnr (Porsche 935) and John Fitzpatrick (Porsche 935), 125; 5, Danny Ongais (Porsche 935/Lola T600), 118; 6, Terry Wolters (Porsche 935), 92; 7, ML Speer (Porsche 935), 77; 8, Bob Akin (Porsche 935), 71; 9, Derek Bell (Porsche 935), 61; 10, Dave Cowart & Kenper Miller (March 82G), 54; etc.



## National Rallies

### CHRISTMAS STAGES RALLY

## Star of Davey

Malcolm Davey had a trouble-free run to win Northallerton AC's Christmas Stages Rally on December 28. A total of 70 competitors left the start at the Croft Star Inn at Croft-on-Tees to tackle the 37 mile event split into 16 stages, although the fourth starter, Andy Elliott, got no further than the very first corner before putting his car off and retiring with axle damage. This left Bill Lynburn to dominate the early part of the rally from his top seeding.

Although the day itself was cold and dry, there was standing water on the fourth stage and this caught out several crews.

Despite the low seeding of six, Russell Close had a good run until his Opel Manta's differential failed on Stainton, putting the local man out. The following stage saw an end to Lynburn's promising run when the Escort lost a wheel and left Malcolm Davey to cruise through the final four stages and take a well-deserved win. Russell Close was not too disappointed, however, as his brother Martin finished 10th overall and took the novice award.

SHEILA WINDRESS

### CHRISTMAS STAGES RALLY Dec 28

- 1, Malcolm Davey/Howard Turner (Ford Escort RS), 41m 22s;
- 2, Dave Owen/Alistair McKay (Ford Escort), 42m 13s;
- 3, Ian Jamison/John Pulleyn (Vauxhall Chevette), 42m 37s;
- 4, Anthony Elton/Mick Sewell (Ford RS2000), 43m 50s;
- 5, Ray Barnes/Steve Baker (Talbot Sunbeam Lotus), 44m 20s;
- 6, Steve Waterall/Stephen Stiles (Ford Escort), 45m 04s.

### HEREFORD EVENING NEWS

## Edwards in his element

Herefordshire MC attracted a disappointing entry of only 37 cars for its Hereford Evening News Rally on December 11. There were 33 cars that left the start to do battle over a 120 mile route in the lanes on the borders of Herefordshire and Powys, led by Graham Middleton/Polly in their Escort.

Patchy ice and mist affected the first half of the route and caused many competitors an anxious moment, although most crews managed to reach the petrol halt where results after three selectives showed Middleton/Polly 3secs ahead of Merv White/Chris Jones with Cliff Edwards/Wyn Griffiths over 2mins down in third place.

As crews tackled the five selectives making up the second half, weather conditions became progressively worse with fog, snow and sheet ice. The course car slid off near Craswall, bending the front axle too badly to continue. The two leading crews fell foul of another bend, causing them to be excluded for damage at the finish, while Graham Quick/Nicky Grist rolled out of the event, blocking the route for some minutes.

Despite the conditions, 22 cars managed to qualify as finishers with two excellent results from the semi-experts with Graham Davies/Brian Price finishing second in their Viva 2000 and Lawrence Penfold/Geoff Allen fourth in their Avenger. Victory after a fine drive went to Edwards/Griffiths in their RS2000, this being the driver's first event for many years.

### HEREFORD EVENING NEWS RALLY

#### Dec 10/11

- 1, C Edwards/W Griffiths (Ford Escort);
- 2, G Davies/B Price (Vauxhall Viva);
- 3, S Richards/P Watts (Alfa Romeo GTV6);
- 4, L Penfold/G Allen (Talbot Avenger);
- 5, W Hughes/L Owen (Ford Escort);
- 6, M Alderton/S Maddox (Ford Escort).

### ENVILLE STAGES

## Safari Mortons'

Warrington & DMC's Howarth Motors Enville Stages attracted a top class entry for 50 miles of fast and deceptive tarmac at Knowsley Safari Park.

The event was incident packed from the start, Kingsley Ingram/Dave Mrkalj demolishing their Sunbeam Lotus and 20 yards of fencing only half a mile into stage one, this being the first of many accidents



The Talbot Sunbeam of Mal Stuart/Geoff Powell scored a convincing victory on last weekend's Virgo Rally in South Wales. Report next week.

on the next four stages.

However, the remaining stages ran more smoothly, the Escort of John and Christine Morton setting a cracking pace with Terry Pankhurst/Roger Freeman giving chase. Mike Stuart/Frank Rowlands, joining Pankhurst in the CMA Motorsport Team for this event, drove an intelligent rally, their times improving when Morton lent them some more suitable tyres.

The last stage provided the final drama however, when Stuart/Rowlands inherited second place as Pankhurst/Freeman took a wrong stage route and sportingly requested exclusion.

JEREMY HOUGH

### HOWARTH MOTORS ENVILLE STAGES Dec 11

- 1, John Morton/Christine Morton (Ford Escort), 3330;
- 2, Mike Stuart/Frank Rowlands (Ford Escort), 3371;
- 3, Paul Windsor/Alan Howells (Ford Escort DR3), 3475;
- 4, Geoff Fielding/Dave Campion (Ford Escort), 3505;
- 5, Chris Asquith/Geoff Hague (Ford Escort), 3573;
- 6, Martin Stockdale/J. Cheshire (Talbot Avenger) 3579;

### OUSTON GOLD CUP RALLY

## Boom-boom Cannon

Alec Cannon/Geordie Tindall demonstrated their expertise over the icy tarmac roads of the Otterburn ranges to win the Priory Garages-sponsored Journal Ouston Gold Cup Rally by over 9mins.

With number one seeds Brian Stanners/Dave Nicholson non-starting, the field of only 26 starters (despite a £39 entry fee for 86 stage miles) was led away by the flying Triumph TR7 V8 of Moore/Elliott, followed by eventual winners Cannon/Tindall in their IGT Rallying/Cannon Plant Hire Avenger. Cumbrian Doug Watson-Clark, starting at four, fell foul of the conditions on the first stage and skated off at Bushman's Crag but the Priory Garages-sponsored 1600cc BRM-engined Talbot Samba of Trevor Wilson/Steve Robson followed at five and put in a trouble free run on only the car's second outing to finish seventh.

If there had been a Man of the Rally Award, then this would surely have gone to late entrants Richard and Andy Miers, who finished a magnificent second overall in their 1293cc Mini Cooper S after some truly spectacular motoring. Third place some 11secs adrift of the Mini, went to Escort crew Alan Hughes/Peter Farren, while a 3mins 'off' on the 14-mile second stage spoiled the chances of road rally men Chris Thompson/Gordon Bradford.

LOUIS LIDDLE

### THE JOURNAL OUSTON GOLD CUP RALLY Jan 2

- 1, Alec Cannon/Geordie Tindall (Talbot Avenger), 53.61s;
- 2, Richard Myers/Andy Myers (Mini Cooper S), 59.07s;
- 3, Alan Hughes/Peter Farren (Ford Escort RS2000), 59.18s;
- 4, Chris Thompson/Gordon Bradford (Ford Escort RS2000);
- 5, Peter Ibbotson/Stuart Bankier (Ford Escort RS1600);
- 6, Alan Anderson/Reiner Stockle (Land Rover V8).



### RALLYCROSS

## Fun for Fiestas

Fine weather and the prospect of some exciting racing enticed people away from their homes on Boxing Day Monday to converge on Brands Hatch circuit for the opening round of the first ever Brands Rallycross Championship. Yet again, another Rallycross meeting was dominated by the Ford Fiesta as Trevor Hopkins, fresh from his successful British GP meeting, took outright victory in the Superfinal.

Hopkins's Hepolite Glacier Fiesta took the lead on lap 2 when John Welch's erstwhile first placed Escort ground to a halt yet again with distributor failure, while hot on his heels, quite literally, came the blazing class 1 Fiesta of Barry Hathaway. Oil pouring from the gearbox had ignited on Hathaway's car after three laps but the class 1 leader kept going to take a worthy second place as everyone waited back at the pits with fire extinguishers.

To say that Fiestas again dominated would be an understatement. In the under 1600cc class, Fiestas won all the first qualifying runs, with Barry Hathaway setting the fastest time and thus taking an extra five points to add to his score. Second fastest was Yorkshire's Peter Booker but in the second runs, Ian Thomson knocked 1sec off Booker's time to take over the number two spot, demoting the young Fiesta driver down to third fastest, 0.5sec ahead of the Mini of a very on-form Tony Bardy.

In the big class, things were little different. There may only have been three Fiestas but at the end of some very exciting qualifying runs, two of them held the top places as British Champion Keith Ripp took outright BTD with a 3m12.7s best over Hopkins's 3m14.1s. A mere 0.3sec behind Trevor came the fastest of the Escorts, John Welch, who in turn was

Eventual winner Hopkins leads the Escort of John Cross during a qualifying heat.



Will Gollop and Trevor Hopkins were two of the stars of the Lydden Hill rallycross on January 2, Hopkins going on to win the Superfinal. Report next week.

almost 4secs up on Barry Squibb, while in a remarkable seventh fastest position was a jubilant Peter Gray, former Chevette driver and recent purchaser of the successful ex-Button VW Golf.

The Rallycross action was ably supported by a host of Minicross drivers, who were having their first taste of the Brands circuit. After two qualifying runs and a "B" final, won by Terry Jenkins from team mate Iver James it was Terry Hall who took the laurels in the "A" final from James, Chris Ward and Philip Turner.

With four cars missing from the class 1 "B" final, non-star driver Ray Houghton took his Mini to victory after leading all the way from Chris Hunt (Mini). Tony Bibb (Alfasud) and Dave Stephens (Escort) as Rob Taylor walked away with the class 2 'B' race from a battling Jim Squibb and Trevor Smith. Fiestas took the top three places in the class 1 'A' final as Barry Hathaway led Booker and Thomson with the Minis of Bardy and Rawle completing the top five, while Ripp, Welch and Hopkins put up a good show to finish in that order in the class 2 race, ahead of Squibb and Clark. But in the Superfinal it was Hopkins all the way as Ripp blew it after going all four wheels off the circuit in taking avoiding action right at the start.

BILL MANTOVANI

### BRANDS HATCH (GB)

#### Dec 27 Brands Hatch Rallycross Championship, round 1

##### Superfinal:

- 1, Trevor Hopkins (Ford Fiesta), 5m 35.7s;
- 2, Barry Hathaway (Ford Fiesta), 5m 44.2s;
- 3, Barry Squibb (Ford Escort), 5m 45.9s;
- 4, Ian Thomson (Ford Fiesta), 5m 54.6s;
- 5, Tony Bardy (Mini), 5m 56.7s;
- 6, Ian Rawle (Mini), 5m 58.0s; etc.

**Class 1 'A' Final:** 1, Hathaway, 5m 37.6s; 2, Peter Booker (Ford Fiesta), 5m 44.1s; 3, Thomson, 5m 44.8s; 4, Bardy, 5m 46.8s; 5, Rawle, 5m 48.6s; 6, Dave Stevens (Ford Escort), 5m 50.5s.

**Class 2 'A' Final:** 1, Keith Ripp (Ford Fiesta), 5m 33.4s; 2, John Welch (Ford Escort), 5m 36.2s; 3, Hopkins, 5m 37.2s; 4, Squibb, 5m 42.0s; 5, John Clark (Porsche), 5m 55.9s; 6, Graham Hathaway (Ford Escort), 5m 56.2s; etc.

### SNETTERTON RALLYCROSS

## Squarely Squibb

The BTRDA Clubmans Rallycross championship drew to a close at Snetterton on Sunday, December 19 and once again it was Escort driver Barry Squibb who took victory in the Superfinal to record a clean sweep in the series. A win in each of the other three rounds assured him of a clear title victory. Despite foul conditions much akin to those at the previous weekend's Brands Hatch Grand Prix meeting, the rear wheel drive cars eventually won through with Escorts taking the top three Superfinal positions followed by Steve Sewell's Mini.

During the series, the Squibb family have dominated the top placings and once again father Jim was well up there with Barry, finishing second overall ahead of Children's Books driver Ron Hudson. New boy Steve Sewell beat all the more experienced class 1 drivers to claim a fine fourth in the Superfinal, the first front wheel drive car home in his 1400cc Mini, while Mark Lloyd resolved a really close fight with Mini driver Eric Presland by taking fifth overall and the class 1 overall title. Seventh went to rally driver Dave Gowing, who produced yet another good result on home ground in his Sunbeam Lotus, while Kevin Broadhurst, who had earlier scored a surprise victory in the class 1 'A' final, was classified eighth in the Superfinal despite non-starting.

Although the Escorts eventually scored a clean sweep, it was in fact a class 1 car that led the qualifying runs as Barry Crump set overall BTD on the very first run of the day with his recently acquired Fiesta. His 2m 16s run was never matched, although Colin Richards running in the Superstars class for drivers of better than three-star rating on the BRDA rankings, came close with 2m 17.3s in his big, 3-litre Vauxhall Chevette.

BILL MANTOVANI

### SNETTERTON (GB)

#### Dec 19 BTRDA Clubmans Rallycross Championship, round 4

**Superfinal:** 1, Barry Squibb (Ford Escort); 2, Jim Squibb (Ford Escort); 3, Ron Hudson (Ford Escort); 4, Steve Sewell (Mini); 5, Mark Lloyd (Ford Escort); 6, Eric Presland (Mini); 7, Dave Gowing (Talbot Sunbeam Lotus); 8, Kevin Broadhurst (Ford Escort).

**Class 1 'A' Final:** 1, Broadhurst; 2, Presland; 3, Lloyd; 4, Sewell; 5, Kevin Francis (Ford Escort).

**Class 2 'A' Final:** 1, Barry Squibb; 2, Hudson; 3, Jim Squibb; 4, Gowing; 5, Brian Pearce (Ford Escort).

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