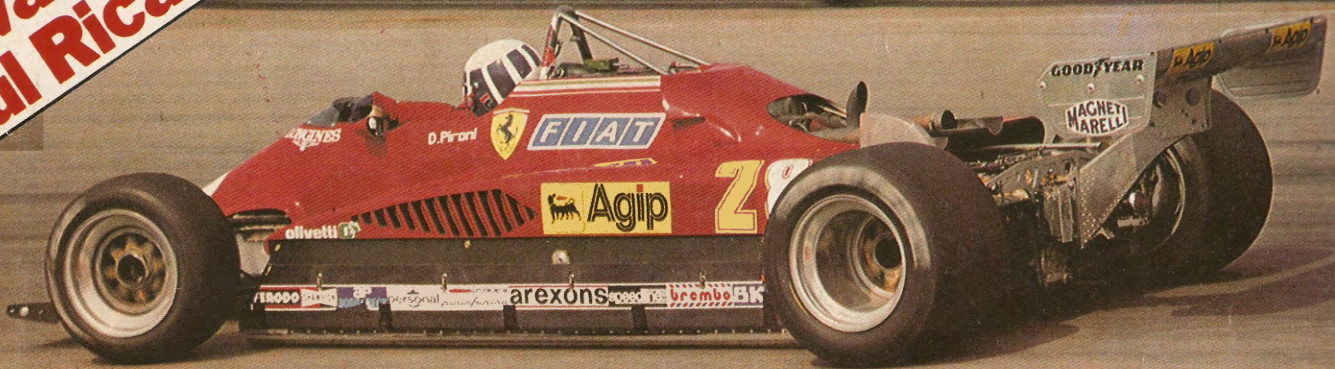


Autosport

A Haymarket publication

July 29, 1982 60p

Renault
revival at
Paul Ricard



Patrick's Russek Rally
Warwick on Brands
Tiff's Scirocco test
Hewland

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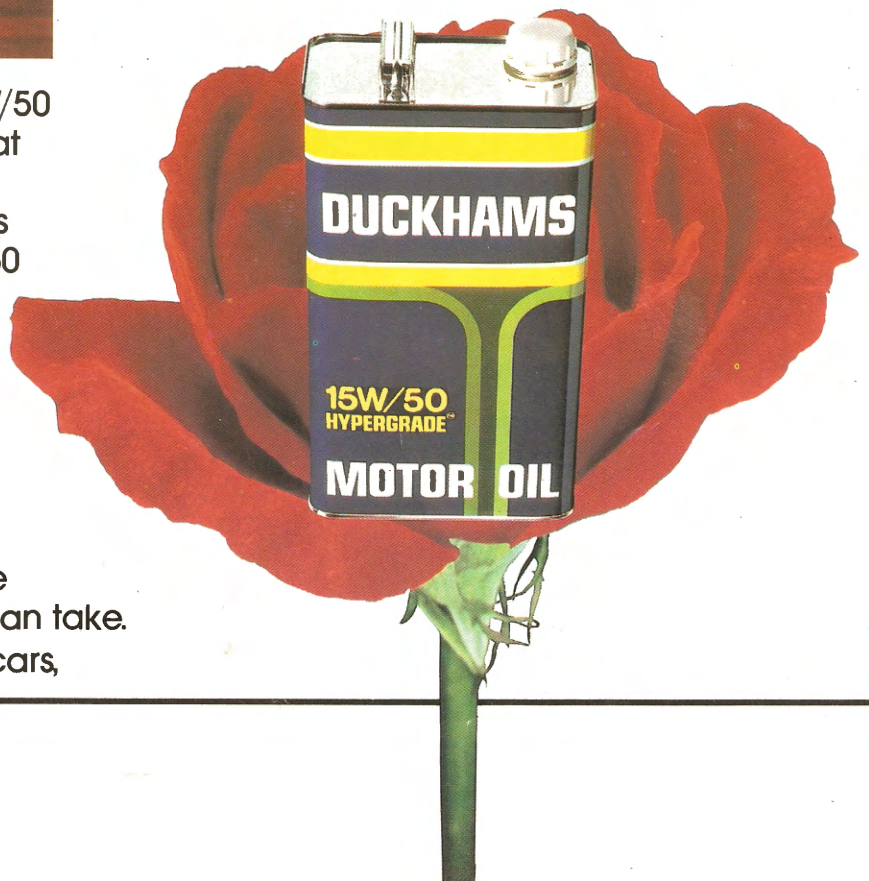
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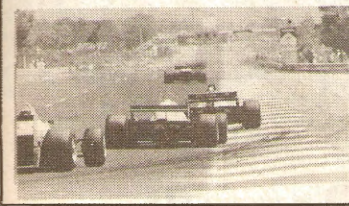
FRONT COVER

Malcolm Patrick scored a hard-earned win on the Peter Russek Manuals rally in his Opel Ascona, not only taking maximum championship points but also finishing first on the road this time with the demise of Terry Kaby. Photo: Tony North. Also on the front cover this week is the turbocharged Ferrari of Didier Pironi who finished third at Paul Ricard, turbos dominating the course of events absolutely. Photo: Jeff Bloxham.

NEXT WEEK

We take a look at the prospects for the German GP—All the action from the Formula 2 boys at Enna, Ian Phillips reports—Fifth Column looks back on both the British and French Grands Prix—Report on the Spa 24 Hours—Yesterday's Cars feature: the Big Healeys.*

*All these items were correct at time of going to press.



PIT & PADDOCK 4

This week's international news—Renault driver controversy, Arnoux to Ferrari?—PRDA proposals for F1 changes—Ralt F2 problems—FIA court dismisses F1 appeals.

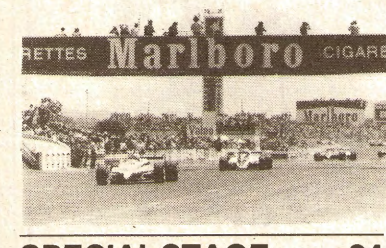


COMMENT 12

We reflect on the disturbing accident in Sunday's French Grand Prix, you put forward your opinions on a wide range of subjects and *Catchpole* raises a chortle.

FRENCH GP 14

Turbo walkover: the writing has been on the wall for the normally aspirated cars for some time, although they have always scored on reliability where their more powerful rivals have failed. This weekend it all changed, however, with six turbocars dominating proceedings and the Renaults returning to form to claim national glory. Brabhams blew no fewer than eight engines in their quest to make the 'sprint' concept work while the best Ford-engined machine finished fifth behind the Ferraris as Nigel Roebuck recalls.



SPECIAL STAGE 24

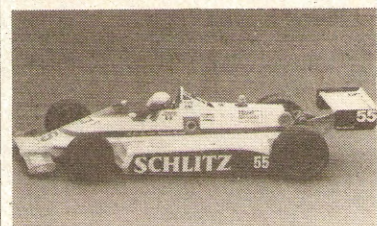
Footpath controversy continues—Vauxhall plan Group B Chevette—Brookes's 1000 Lakes testing—Another Lancia crashes—News from the weekend's Pace/AUTOSPORT event.

GATEWAY TO ASIA 27

Martin Holmes looks at the new-found importance of international rallying in the Middle East in relation to the World Rally Championship.



MICHIGAN CART 28



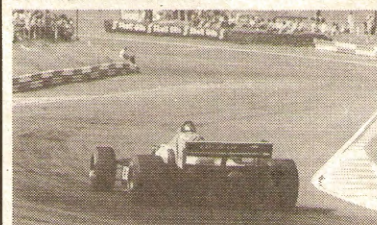
Pat Patrick's Wildcat duo of Gordon Johncock and Mario Andretti scored a tremendous one-two at the recent Michigan 500, Andretti having started his spare car from the back of the grid having crashed his pole-qualifying chassis. Johncock's second 500 victory gives him a chance of taking the triple crown at Pocono. Gordon Kirby reports.

RUSSEK RALLY 31



The fifth round of the Pace/AUTOSPORT RAC National rally championship saw Malcolm Patrick emerge victorious for the first time this season in his Opel Ascona 400. Keith Oswin followed the event.

INTERVIEW 42



Derek Warwick discusses the Toleman team's incredible showing at the British Grand Prix with Jeremy Shaw and looks to the future with cautious optimism.

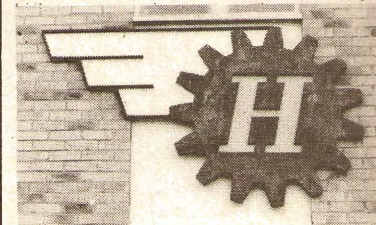
TRACK TEST 44



Tony Lanfranchi recently let AUTOSPORT'S track tester, Tiff Needell loose in his Tricentrol G1 VW Scirocco at Donington. Tiff gives his impressions of the 1600cc coupé.

INDUSTRY INSIGHT 46

The history and development of Hewland racing transmissions is a fascinating one as Kevin Blick found out when he visited the Maidenhead factory.

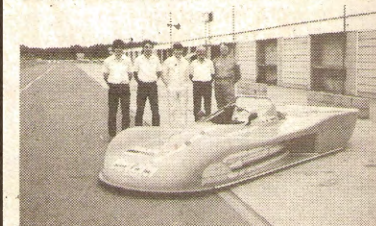


SPORTSEXTRA 51



Big historic attraction at Donington: F1 cars to the fore—Tiga's latest FF1600 car expected—BRMP261 at Silverstone—Van Diemen on the hills—Tucker trials—National motor sport snippets.

NEW RACING CARS 52



Richard Owen's radical Aquila RO:82-S Sports 2000 challenger is certain to be one of the sensations of the decade. Shakedown runs went extremely well at Silverstone last week, prior to the car being ferried to Pocono for its owner Bert Biles. Two years of sterling work have gone into the Aquila as Marcus Pye discovered. You ain't seen nothing yet!

SPORTSCARD 55

Reports from round the globe—CanAm, TransAm, Atlantic and SuperVee action from Elkhart Lake—French GP supporting cast—Duxbury's South African Atlantic—National races at Aintree, Mallory and Oulton plus hillclimbing and rallying from the Sligo Stages.



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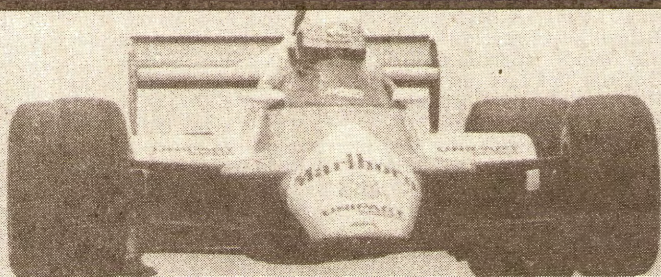
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Lola T610: first C-car in CanAm series

The Budweiser 7-Eleven CanAm Challenge round at Elkhart Lake last Sunday saw the first appearance by a Group C car since the SCCA's much-publicised decision to admit these cars to boost the ailing series.

Ralph Kent-Cooke's Lola T610 appeared in the hands of Jim Adams and was tended by John Bright, the former Formula 3 man running the team in conjunction with Carl Haas. The car qualified disappointingly, 12secs off the pace, and ran for only four laps until being halted by a variety of problems, including gearbox failure. Although one onlooker described it as a "bit of abus", it ran as fast as Al Holbert's winning VDS down the straights, its handicap being chronic handling through the corners.

Some observers thought the car performed well below its capabilities because of a deliberate ploy by the team. Haas, they say, wanted to show the SCCA that Group C cars are wildly uncompetitive under the present rules, and that changes to the equalisation rules are needed.

A draft of the 1983 rules will be discussed at Trois Rivières on September 5, and it is thought that the SCCA will seek to impose restrictor plates on the engines of the CanAm cars in an attempt to slow them down. This will almost certainly be seen by the teams who have supported this troubled series through its lean years as a body-blow, which will be further compounded if the SCCA reserves the right to make race by race adjustments to the equivalency.

Desiré heads for America

Desiré Wilson and her husband Alan, Director and General Manager of Brands Hatch circuit, are moving to America.

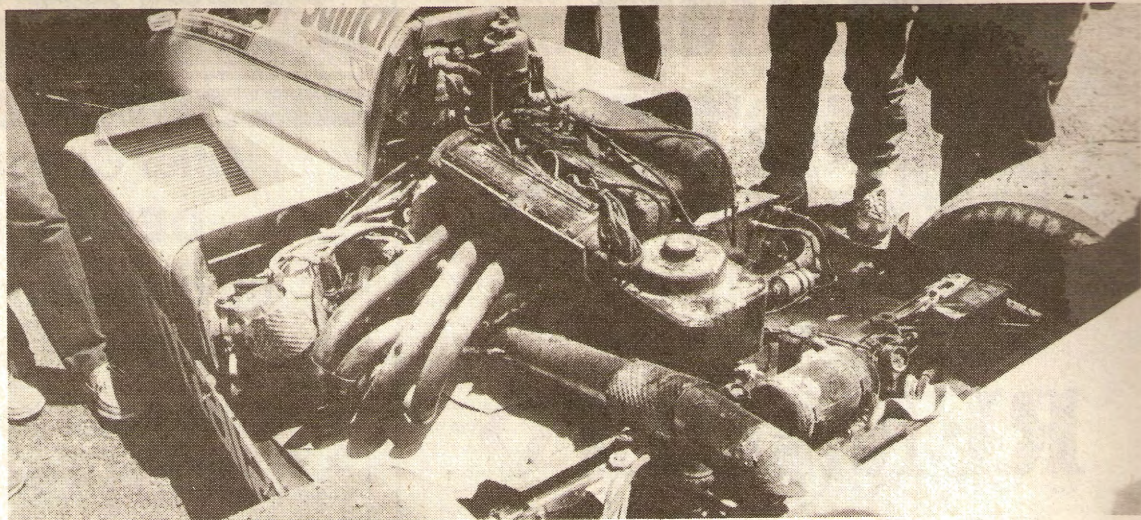
"We want to get Desiré into American racing, either CART or IMSA," said Alan on Monday, "and although there's nothing on the cards at the moment we felt we have got to make the break now."

In similar vein, the Wilsons arrived in Britain four years ago and while Desiré went on to become the first woman to win a Formula 1 race, her husband ensured the smooth running of Brands, culminating in this year's highly successful Grand Prix meeting.

"It is a friendly split with Brands," said Alan. "We owe John Webb a great deal of thanks for taking us in the first place and helping push Des's career. We hope to keep a base in England and just commute between commitments."

Although Desiré ultimately hopes to get ensconced in the CART scene, she will begin the new chapter of her career driving Preston Henn's Porsche 935K in the IMSA GT at Mosport and Elkhart Lake in the middle of August.

AUTOSPORT, JULY 29, 1982



Expensive weekend for Brabham

This sorry-looking mess was all that was left of the BMW turbo engine in Riccardo Patrese's Brabham BT50 at Paul Ricard last Sunday. The Italian was leading when the engine caught fire, but he managed to get the car back to the pits before leaping out. This incident crowned an expensive weekend which saw the Brabham team get through a good many BMW turbos...

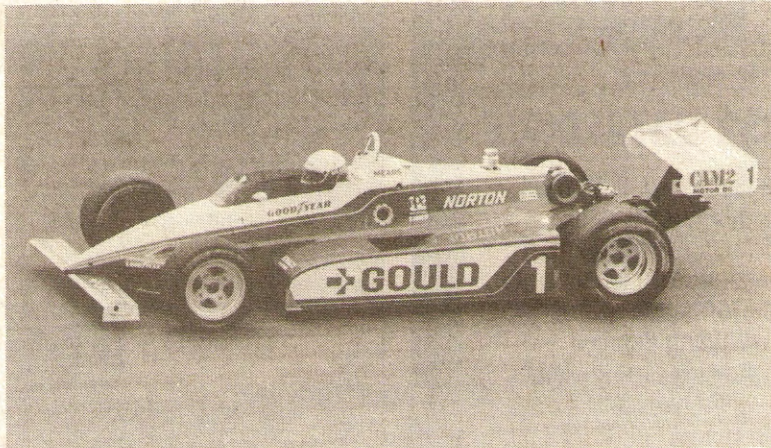
Andrettis to debut Mirage at Elkhart Lake IMSA race

Following their bitter disappointment at Le Mans, Mario and Mike Andretti will debut Harley Cluxton's Mirage in the 500 mile IMSA race at Elkhart Lake on August 22. As reported last week, Cluxton has now decided not to enter the final round of the World Endurance Championship at Spa on September 5.

Another fascinating debutant at Elkhart Lake will be the Jaguar GTP car

to be driven by Bob Tullius and Bill Adam.

There will also be a Lola T600 backed by Interscope and driven by Danny Ongais and Ted Field powered by a twin-turbo Chevrolet 3.5-litre V6 engine. This conversion adds weight to the suspicion that GM are slowly increasing their involvement in racing, partly via this unit built by Ryan Falconer.



Rick Mears in the Penske PC10 — facing changes?

Indianapolis rules to be changed for CART

Changes in the Indianapolis rules are imminent, and their intention is to slow the cars down. A large contingent of Indy officials, including Tony Hulman Jr (who will shortly take over the Presidency of the Speedway), were present at the Michigan 500 last weekend.

Clearly, the intention is to work out an agreement to run the Indianapolis 500 to CART rules, and to work on a way to bridge the gulf which still exists between USAC and CART.

On Monday last, a meeting was due to

be held between numbers of the Technical Committee, designers and engineers. Nothing of a radical nature was expected from the meeting, but it seems certain that skirts of all types will be banned, and that wing areas will be reduced. Engines are expected to be left as they are.

Although next year's 500 will definitely count for points in the PPG Indy Car World Series, USAC will probably continue to sanction the race, as CART are not really interesting in acting as the sanctioning body.

D-S Toleman return

Having missed the Mantorp Park Formula 2 race, the Docking-Spitzley Toleman team will be back in action at Enna this weekend. In Sicily the team will be running just one car for Carlo Rossi, while they hope to have Thierry Tassin (committed to the Spa 23 Hours this weekend) back for Misano to drive their Hart-powered car.

For the two Italian races the DS team will be receiving tyres and assistance from Bridgestone.



Musetti — frustration over?

Musetti's CanAm

Frustrated British Formula 1 entrant Val Musetti had his first CanAm race last Sunday. The talented stuntman gave his Colin Bennett tended March 811 its race debut in CanAm guise at Elkhart Lake after qualifying an encouraging ninth, 10secs off Al Holbert's pole position time.

Musetti ran well until the car gradually lost all its gears. The team will be out again at Trois Rivières and the team plans to run a second car for David Kennedy.

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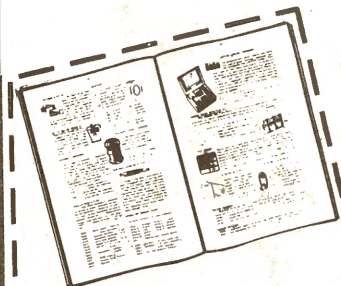
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CART/USAC agreement

All the indications seem to be that CART and USAC are determined to remain committed to compromise over the rules for the Indianapolis 500. Following a meeting on the Monday after the Michigan CART race (see page 28) between designers and engineers, CART have decided to propose a minimal number of rule changes to the Indy management, in the interests of low cost.

They have decided to eliminate all skirts — in line with this year's USAC ruling at Indy — and to raise the sidepods so that their base is 1in above the base line of the tub. There was some discussion on reducing wing areas, but it seems that changes will be restricted to these two items.

The most encouraging factor for the future stability of Indycar racing is that both sides are committed to sticking with the existing engine rules, thus ruling out the spiralling costs which any change would cause.

Group A RAC saloons: small class dropped

In a short meeting last week the classes for next year's RAC British Saloon Car Championship were set. The Championship is to change from Group 1 to Group A regulations — in line with the rest of Europe — and there will only be three classes instead of four at present. The casualty is the smallest, up to 1300cc class.

The meeting, hosted by the RAC, included representatives from most of the major manufacturers and teams in the series and they agreed to a class structure of up to 1600cc; 1601 — 2500cc and 2501 — 3600cc. Aside from the demise of the 1300cc class, the other major change is an increase in the top class to allow the Rover V8 in at its homologated Group A capacity of 3528cc.

BL's John Davenport who had a vested interest in both top and bottom classes, said: "Everybody seemed happy to allow the Rover in by increasing the

top class, but the general feeling of the meeting was that the smallest class should go."

The news, however, was greeted unhappily by many of the 1300cc class runners who felt that the Metro in particular, was ideally suited to Group A racing. The Napolina Alfa Romeo team, too, were upset. Jon Dooley, who won the class last year in his Alfasud said: "The hallmark of the small class over the years has been close racing. And that's something that cannot be said of all the other classes. I think it is a shame that the class has gone."

Keeping the top class to similar limits at present, however, has generally been regarded as a good thing, making sure the 'Big Banger' Mustangs and Camaros remain outlawed. The RAC's Derek Ongaro said: "The meeting was short but the feeling was generally amiable. I think we have the makings of a good championship for next season."



Moodie — Anson's answer.

Moodie's Anson wins on FSV debut

There was some justifiable jubilation at the Lichfield premises of Anson cars on Monday when they learned that their SuperVee car had scored a debut win at Elkhart Lake last weekend.

Despite a very limited test programme, the F3 chassis based car qualified third in the hands of Pete Moodie, behind the Ralts of Ed Pimm and Mike Rosen. Moodie took the lead early in the race and went on to score an easy victory.

The Anson was fitted with an engine prepared by their Chicago-based agents Bertils Engines and they are hopeful that this initial success will lead to further orders in an attempt to break the Ralt stranglehold.

In the meantime, the factory is busy building up a new F3 chassis which will be available for hire for the remaining nine rounds of the Marlboro British F3 series.

Gartner axed for rent-a-drivers

The seemingly eternally unlucky Austrian F2 driver Jo Gartner was informed after the race at Mantorp last Sunday that the Merzario team would be running his car for other drivers in the final two races of the season.

The Austrian's early season performances in the Merzario March at last brought some respectability to the team, although the poor preparation and lack of interest from Pirelli gave him no chance of getting any results. "I desperately needed a couple of good results," he told us last weekend, "as there was a chance of a drive at the Austrian Grand Prix if I could have got a Super Licence. Also I need the result to get sponsorship for either a works F2 drive next year or to be able to run my own team."

Merzario F3 driver Roberto Campominosi will drive the under-prepared 822 (which is now unrecognisable as being one of Ralph Bellamy's designs) at Enna while Lamberto Leoni is set to return to the scene of his greatest triumph at Misano where he won in the Chevron-Ferrari in 1977.

Walkinshaw's Jaguars head Spa 24 hours entry

The touring car version of Le Mans, the Spa 24 hours, takes place this weekend. It now counts as a round of the European Touring Car championship, and this time there will be two Jaguar XJS cars from Tom Walkinshaw's Team Motul Jaguar equipe. The Jaguars will be driven by Walkinshaw and Chuck Nicholson, while other drivers on the strength are Peter Lovett and Walkinshaw's 1981 winning co-driver, Pierre Dieudonné. Jeff Allam is also named.

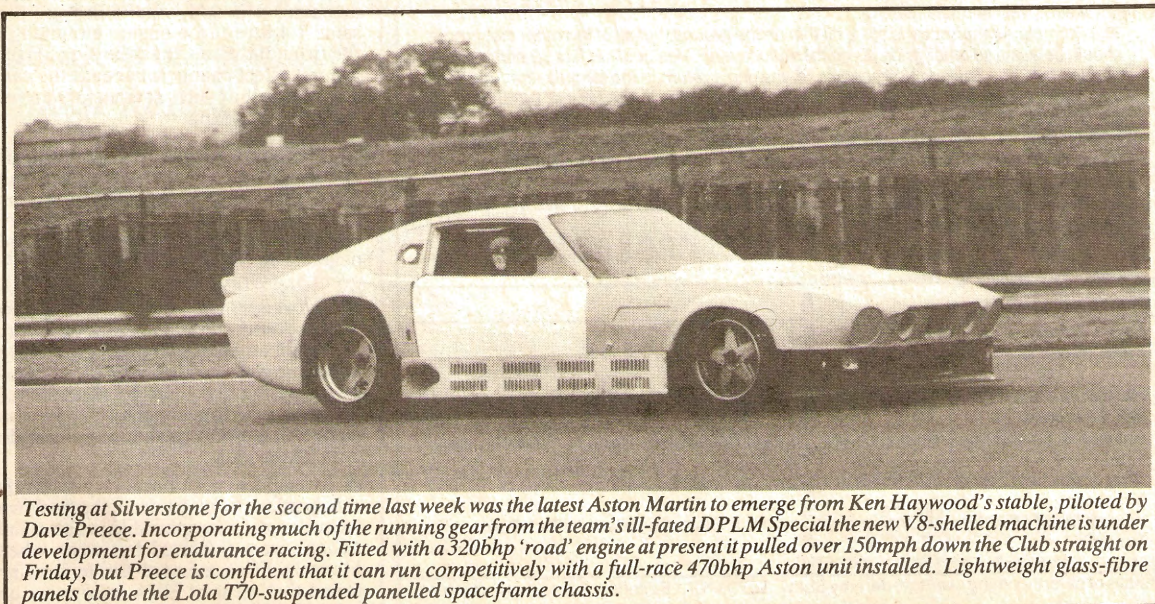
The Jaguars are up against no less than 13 BMW 528s, 11 Capris, four Chevrolet Camaros, three Opel Monzas, and a lone Mercedes. This last car has been entered by Claude Bourgoignie, and will be co-driven by John Cooper, with whom Bourgoignie drove at Le Mans this year.

Umberto Grano and Helmut Kelleners, this year's champions will be out to prove that they are worthy champions in the Eggenberger-prepared 528. Jean-Pierre Jarier, Eddy Joosen/Hans Heyer, Dieter Quester/Armin Hahne and Desiré Wilson/Anny-Charlotte Verney are other notable BMW drivers.



Dieudonné — Jaguar favourite.

Sadly, few Englishmen are making the trip this year, but Vince Woodman is named to drive with the Martin brothers,



Testing at Silverstone for the second time last week was the latest Aston Martin to emerge from Ken Haywood's stable, piloted by Dave Preece. Incorporating much of the running gear from the team's ill-fated DPLM Special the new V8-shelled machine is under development for endurance racing. Fitted with a 320bhp 'road' engine at present it pulled over 150mph down the Club straight on Friday, but Preece is confident that it can run competitively with a full-race 470bhp Aston unit installed. Lightweight glass-fibre panels clothe the Lola T70-suspended panelled spaceframe chassis.

INTERNATIONAL RACING

Date	Venue	Event/Details
Jul 31/ Aug 1	Spa-Francorchamps, Belgium	18th Spa 24 Hours — European Touring Car Championship, round 9 <i>The ETC's most prestigious race of the year generally draws a capacity field to the superb Ardennes circuit. Two Jaguars should be on hand to take on the multitude of BMW and Opel entries with strong competition also in the 2500cc division.</i>
Aug 1	Enna-Pergusa, Sicily	European Formula 2 Championship, round 12 <i>From Sweden two weeks ago, the hardy F2 competitors now have to trail all the way south to Sicily for this weekend's penultimate round of the close-fought series.</i>
Aug 1	Milwaukee, Wisconsin, USA	Tony Bettenhausen 200 — CART/PPG Indy-car World Series, round 6/Robert Bosch VW Super Vee Championship, round 6 <i>Patrick Racing are on a real high at the moment, Gordon Johncock and Mario Andretti having taken their Wildcats to first and second in the points standings.</i>
Aug 1	Talladega, USA	Talladega, 500 — NASCAR Winston Cup Grand National Championship, round 19 <i>This race, on the fastest of all the American Super Speedways, is second only in importance to the famed Daytona 500. All the regular 'aces' will be there, battling at over 200mph.</i>
Aug 1	Misano, Italy	Italian Formula 3 Championship, round 9 <i>The local competitors have had almost a month's lay-off since the Enna Euro-round. Enzo Coloni still leads the series, now equipped with a Ralt-Alfa Romeo, of course.</i>
Aug 1	Diepholz, Germany	German Formula 3 Championship, round 7 <i>John Nielsen (Ralt-VW) and Bruno Eichmann (Ralt-Toyota) head the points table although Martini-equipped Josef Kaufmann made up ground.</i>
Aug 1	Calder Raceway, Australia	Australian Gold Star Championship, round 5/Sports Sedan & GT Championship, round 6 <i>The usual Ralt brigade will fight out the Formula Pacific event, while Alan Jones heads the Sports Sedan field in his Porsche Australia-entered 935.</i>
Aug 1	Portland, Oregon, USA	IMSA Camel GT Championship, round 12 <i>Entries in the GTX/GTP division have been rather thin recently, although Ted Field will take his pair of Lola T600s for himself and Danny Ongais to challenge John Paul's Porsche.</i>
Aug 1	Donington Park, England	FIA International Historic Championship, round 5 <i>The HSCC's annual Donington weekend caters for a vast array of 'Historically interesting' cars, the highlight of which is a round of the FISA International championship.</i>

NATIONAL RACING

Date	Venue	Event/Details
Jul 31/ Aug 1	Donington Park, Derby	Atlantic Computers/Bellini Models Historic GTs, Varley Batteries F Junior, Thoroughbred sports, Post-Historic road sports, Seldon Classic sportscars, Willhire Pre-65 single-seaters, closed GT cars, Pre-57 Saloons, MG T-Types (HSCC). <i>The Historic Sports Car Club have attracted a huge entry for their annual classic car weekend and, in all, there will be 17 races over the two days. Most of the championship events will be on Saturday, including two races for the Atlantic Computers/Bellini Models cars, which will have a fabulous collection of cars. Action on both days starts with practice from 0900 and racing will commence at 1400.</i>
Aug 1	Mallory Park, nr Hinckley, Leics.	Marlboro British F3, P&O Ferries FF1600, 'Champion of Mallory' FF1600, F Talbot/F Libre, Monroe Prodsaloons, Mini Miglia, Clubmans A (BARC) <i>There was no touching Tommy Byrne at Brands Hatch last time out. James Weaver, Martin Brundle, Enrique Mansilla, Roberto Moreno, Dave Scott, et al will be out to put matters right this time. Formula Ford fans will be well catered for with rounds of the P&O Ferries and 'Champion of Mallory' series, with further entertainment provided by Clubmans A cars, Mini 1000s, Monroe Prodsaloons and a combined F Libre/Talbot race. Qualifying will start at 0930 and the first of seven races at 1400. Adults, £3.50; Children, £1.</i>
Aug 1	Snetterton, nr Thetford, Norfolk	Pace British 2000, British Sports 2000, 'Champion of Snetterton' FF1600, BP 'Superfind' Junior FF1600, Bobcat ASCAR, MGA, MGB/C/V8, Oceanair Clubmans, (BARC). <i>Eight races comprise the BARC's Snetterton offering with the pair of 2-litre Ford-engined categories heading the bill. The single-seater event sees the usual crop of Van Diemens dominating the line-up, although the sports car category includes an interesting selection of Royale, Tiga, March and Lola cars. First race is at 1400, following practice from 0930. Adults, £3; Children, £1.</i>
Aug 1	Brands Hatch, Fawkham, Kent	F Atlantic, Esso FF1600, 'Champion of Brands' FF1600, Pre-74 FF1600, F Vee, 750 F, Unipart Metros, MG Midgets (BRSCC) <i>The Formula Atlantic entry is still a bit thin on the ground, but all of the other eight races should be assured of full grids. Even the Autocavan F Vee qualifier has 19 entrants, headed by Chris Taylor's Volkspeed and, making a return to the formula, the Scarab of Tim Flynn. Practice for the meeting will start at 0930 and the first race at 1430. Adults, £3; Children, £1.50.</i>
Aug 1	Knockhill, Fife	FF1600, F Libre, Clubmans/Sports 2000, GTs, Historics, Road-going sportscars (SSCC). <i>The SSCC will be hoping for better weather than graced their last Knockhill adventure, when racing had to be suspended due to fog. Undeterred, though, the club have laid on an interesting programme of nine races. Practice will start at 1000 with racing from 1400. Adults, £2; Children (under 12), free.</i>

OFF-TRACK

Date	Venue	Event/Details
Aug 1	Great Farthingloe, Dover, Kent	BARC Hillclimb
Aug 1	Hartlepool, Cleveland	Hartlepool National Championship Autotest. Starts at Town Centre car park at 10.45am
Aug 1	Prescott, Gloucestershire.	VSCC Hillclimb
Aug 1	Eastbourne, E. Sussex	Autocross. Eastbourne & Ramsgate MC. Starts at Priesthaves Farm, nr. Eastbourne, at 11am.
Aug 1	Stourport-on-Severn, Hereford & Worcester.	Sixty & Worcs MC Autocross. Starts at Whitehouse Farm, Arley Kings.
Aug 1	Morpeth, Northumberland.	Journal Minorities Autocross Championship, round 5. Starts from Causey Park Farm, Morpeth.

Secretaries of the Meeting are requested to send details of all forthcoming events to Jeremy Shaw, AUTOSPORT Editorial, Haymarket Publishing Ltd, 38-42 Hampton Road, Teddington, Middlesex.

Briefly . . .

● Nigel Mansell, having missed last weekend's French Grand Prix because of the injury sustained at Montreal, fully expects to be fit for Hockenheim next week.

● Formula 2 drivers holidaying at Paul Ricard last weekend and showing their faces in the Grand Prix pit lane included championship leaders Johnny Cecotto and Corrado Fabi, and Spirit team-mates Stefan Johansson and Thierry Boutsen.

● The Spirit-Honda Formula 2 team set off early for this weekend's Enna race so that they could do some tyre testing at Misano on the way down.

● Because FISA has been unable to clarify the Formula 2 skirt rules, work has ceased on the carbonfibre Minardi chassis which was due to have made its debut at the team's home circuit of Misano next week.

● Murray Taylor Racing expect to run American Mike Rosen in their third Formula 3 Ralt at a couple of races later this year following his Brands debut.

● Although BMW have yet to decide what their future Grand Prix involvement, if any, will be, there are strong rumours that if engines are to be sold to any other teams then ATS will be the lucky ones and that Stefan Beloff will join Manfred Winkelhock in what will be an all-German team.

● We have been asked to point out that Tim Wright was responsible for much of the design work on the new Fittipaldi in conjunction with Richard Divila.

● Piercarlo Ghinzani will probably drive a second Fittipaldi in the Italian Grand Prix at Monza.

● The turbocharged Alfa Romeo V8 engine is now set to make its racing debut at either Dijon or Monza. Testing has been carried out until now in an old 179 chassis, but an engine is currently being installed in one of the latest carbon fibre 182 cars, and will be tested at Balocco in the near future.

● A little bird swears he saw a turbocharged engine sitting in Ken Tyrrell's factory the other day . . .

● After the success of Klaus Ludwig's Ford Mustang turbo in last Sunday's IMSA race at Sears Point, rumours are gathering pace that Ford are to build a Mustang lookalike IMSA GTP car. The machine, it is said, would also use the same 1.4-litre turbo engine mounted in the front of the car, thus allowing longer ground effect channels beneath the car. The rules allow such devices forward of the driver's cockpit.

● A reliable source in America suggests that the contract for next year's Canadian Grand Prix has yet to be signed by the Montreal organisers, and that representatives of the city of Toronto are negotiating for a race, either a CART event or a Grand Prix . . .

● Budweiser, who have a three-year deal up to the end of 1984 to sponsor the SCCA's CanAm Challenge, are trying to add some glamour to the series next year by proposing that there be a number of lesser races and one super-rich event with a prize fund of \$500,000. Competitors do not like the idea . . .

● Attempts to get a Formula 2 skirt rule clarification through before the final two rounds of the championship at Enna and Misano were thwarted last week when Mantorp FISA steward Emile Brezing found that most of FISA were away on holiday until August 1.



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Paul Ricard's lessons

In most respects, last Sunday's French Grand Prix was a thoroughly unremarkable event, a rather tedious procession, with the turbos in a race of their own.

From one point of view, however, the race was immensely significant. Early in the race, Jochen Mass's March tangled with Mauro Baldi's Arrows at the entry to the Courbe des Signes, the immensely fast right-hand corner at the end of the long back straight. At close to maximum speed, the two cars hurtled off the road, the Italian's finishing up against the guardrail. Mass's car, though, hit the tyre-lined barrier, vaulted it and finished up in a spectator area.

Miraculously — it was nothing less — there was no loss of life, although several members of the public were injured, some seriously. And this at a circuit considered to be among the safest in the world.

For a long time now, AUTOSPORT has not been alone in its condemnation of Grand Prix racing's astonishing ability to close its eyes to potential disaster, political and otherwise. For some years its internal struggles, rows and selfish intransigence has sickened outsiders, but at stake here is far more than what it is fair to X, unfair to Y. When an inability to agree upon rule changes leads to putting the public at risk, the stupidity has gone too far.

Sunday's accident was not a bolt from the

blue. Early this year Didier Pironi's Ferrari came to rest in a spectator area — mercifully empty — after a massive accident in testing. At the time, the circuit director, Francois Chevalier, had this to say: "This accident confirms what we already knew. If our circuit is no longer suitable for Formula 1, what of the others? The drivers are in danger, and so are the spectators. The problem is that, at the highest level, no one takes into account the joint wishes of the drivers and organisers on the matter of safety. Here we must think of serious changes between now and the French Grand Prix."

At Signes, the run-off area is woefully inadequate for a corner approached at 200 mph, but extending it would entail a massive amount of work, and that would be enormously expensive. It is simply not realistic to expect circuit owners to dig deep into their pockets every year or two, to change the landscape in order to accommodate the latest leap in cornering speeds.

There will be those, of course, who lay the blame at the door of the turbo teams, who claim that increased horsepower leads to greater straightline speed, wherein lies the true danger. But we believe this not to be the case. The turbos were arriving at Signes appreciably faster than the 3-litre cars, true, but this accident did not involve turbos and their straightline speed.

Simply, cars should not be capable of taking corners like Signes flat, or virtually so. Cornering speeds are ludicrous today, simply because ways of reducing them cannot be agreed.

Next week we go to Hockenheim, where the track's only testing corner, the Ostkurve, has been emasculated by the insertion before it of a chicane. If no changes to the cars have been introduced before the next race at Paul Ricard, the circuit owners will presumably be compelled to think about a chicane before Signes. Rather than continue the chicane blight, surely it would be preferable to leave the tracks alone, to leave in their most testing corners, to change the cars to a more sensible specification.

We used to watch final practice at Ricard from the very fast left-right swerves after the pits. There you could see who was good, whose car was working properly. Last weekend it was comfortably flat for every car and driver present.

Mass's accident finally spelled out the folly which currently pervades Grand Prix racing, and it is astonishing that similar accidents have not occurred before. If Formula 1 continues on its present course, they will assuredly occur again. When spectators lose their lives, it will cease to be an 'in house' matter. For God's sake sit up and take notice before it is too late.

Correspondence

the editor is not bound to agree with readers' opinions

Inflationary comment

Nigel Roebuck's July 15 *Fifth Column* comment on the receding Hippie fraternity of Amsterdam, and that heady time of the summer of 1967, reminded me too of those far off carefree days when we were all swept along in the flower power euphoria. However, the day I remember most vividly from that year was a glorious summer Saturday 15 years ago to the day, when I hitch-hiked to Silverstone for the RAC British Grand Prix, not the Woolmark, John Player or Marlboro Grand Prix but the real thing. The trackside enclosures cost ten bob, and the programme was half a crown; this year's programme was three times the '67 admission fee! My whole day cost less than three pounds, a far cry from the £30 or so I would spend today.

Oh yes, and Jim Clark won a fine race in the new Lotus 49, powering away from the second place battle between Denny Hulme's Brabham and Chris Amon's Ferrari. The incredible Ford engine was just about to open Grand Prix racing's door to the likes of Messrs Tyrrell, Surtees, Mosely, Mayer and Williams and render obsolete the Weslake, Maserati, Honda, Repco and the BRM H16.

Mr Roebuck is right. The beautiful people are becoming very thin on the ground, and nowhere is it more noticeable than in the presently squalid world of Formula 1.

PETWORTH, WSUSSEX ANDREW PHILLIPS

Trespassers

As an enthusiast who makes a point of attending all three days of the British Grand Prix meeting, I was very annoyed not to be allowed to look at the F1 cars after practice at Brands Hatch this year. The circuit owners said that they had been requested by FOCA and the RAC to stop members of the public looking at the cars in the evenings.

As the pit walkabout at midday is a complete waste of time, with so many people crowding each other for a mere 40 minutes or so, I have found that a visit to the pits

after the day's practice is the best way to study the cars. If this opportunity is to be denied me, then I will not in future attend Grand Prix practice days.

FOCA should try to remember that the general public do help to pay some of the bills, and Brands Hatch should study Silverstone, where a member of the public in the pit area after the day's proceedings are over is not treated as a trespasser.

BRAMCOTE, NOTTINGHAM KPTOWN

Contrast

I thought that 'Contrast' was the name of a box of chocolates until I heard both Clive James and Murray Walker talking about motor racing within one hour of each other.

At long last someone has made a documentary about Grand Prix racing in the correct frame of mind: humour. I only say that because I have been so frustrated watching the *Grand Prix* shambles for the last three years.

Thank you, Mr James, for taking the covers off.

FOREST HILL, LONDON HUGHRHODES

Thames keep quiet

I wonder how many of your readers know that Thames Television are currently showing a series of 11 programmes entitled *History of the Grand Prix*. Before you get too excited by this news I had better tell you that the programmes are broadcast at 10.30am on a Thursday and cover the period 1970-1980.

I telephoned Thames to ask why they put the programmes out at such silly times. "Motor racing is not peak viewing material and we have a gap to fill, left by the schools programmes, ending for the summer," said a pleasant girl on enquiries.

"Perhaps," I suggested, "this series could be

repeated when Thames gets its second channel."

"Perhaps," she said.

I think I'll hire a video recorder.

LONDON E17

WILLIAM WRIGHT

The 'Flying Pig' lives

On behalf of the Toleman team, we would like to thank everyone concerned for putting on a splendid show for the three days at Brands Hatch last weekend.

Incidentally, to put the record straight, Derek has started five Grands Prix this year, and not four as mentioned in your Editorial.

The 'Flying Pig' lives!

BRENTWOOD, ESSEX

CHRIS WITTY

Toleman Group Motorsport

Start pit stops

Now that the Brabham Formula 1 team have shown their preparedness, in both senses, to refuel and change tyres during the course of a Grand Prix, may I again put forward a suggestion I have been advocating for some time. That is to stipulate that all Grands Prix, regardless of circuit or weather, should last two hours plus one lap. The fuel tankage should remain unchanged so the 30 cars will have to come in and make a fuel stop which would add a great deal to spectator interest. If the more efficient cars can be made to last without a stop, good luck to them.

After all, rapid fuel stops are a feature of USAC racing and always used to be in GP races when they were of 300 miles or so. Of course, something would have to be done to reduce the ridiculous 3g cornering forces, otherwise the drivers might not last out! In my view the only reason to stop a race is if the track is blocked, not because of rain. What do other readers think?

BRAINTREE, ESSEX

BRIAN JOSCELYNE

Playing the game

May I say how disgusted I am with the treatment being handed out by certain racing commentators against the young Argentine driver, Enrique Mansilla. This likeable young man came over here to practise the art of motor racing, and not to be insulted by people who should know better.

I believe that what happened in the Falkland Islands had nothing to do with him. If one of our own drivers had been treated in this manner in Argentina, we would have had plenty to say. I think that we should treat guests to our country with respect and common courtesy. Although what the Argentines did in the Falklands was unforgivable, this does not give us the right to pillory one very charming young man.

BEAUMONT-CUM-MORE

DENNIS COTTOM

Rotting away?

I suppose it was inevitable, but the rot has set in for the demise of Cadwell Park, the best track in the country. Its great appeal is its unique character, and modifying the track as has been mentioned, will considerably reduce its challenge. Due to its bad location, the number of people who are prepared to travel all the way there will surely be reduced.

Race tracks are continually being made more featureless and consequently less challenging, in the quest for greater safety. Eventually all tracks will end up like Silverstone, but you cannot build a 'safe' race track.

It is not surprising that hillclimbing is such an expanding sport, since the hills remain unique and unaltered.

ROADE, NORTHAMPTON

RICHARD MALLOCK

'Smokey' Yunick's sidecar

With reference to the photograph on page 25 of *Armchair Enthusiast*, (AUTOSPORT, July 15), of the car built by 'Smokey' Yunick, I would like to add a little extra information.

The car appeared at Indianapolis in 1964 where it was entered as the 'Hurst Floor Shifter Special' and painted black and gold. It was tested initially by the very experienced driver Dave Carter, who it was reported, liked the car very much. The reputed reasons for the strange configuration were better driver visibility, improved weight distribution and better control! The car was later given to Bobby Johns for further testing but he unfortunately wrecked it.

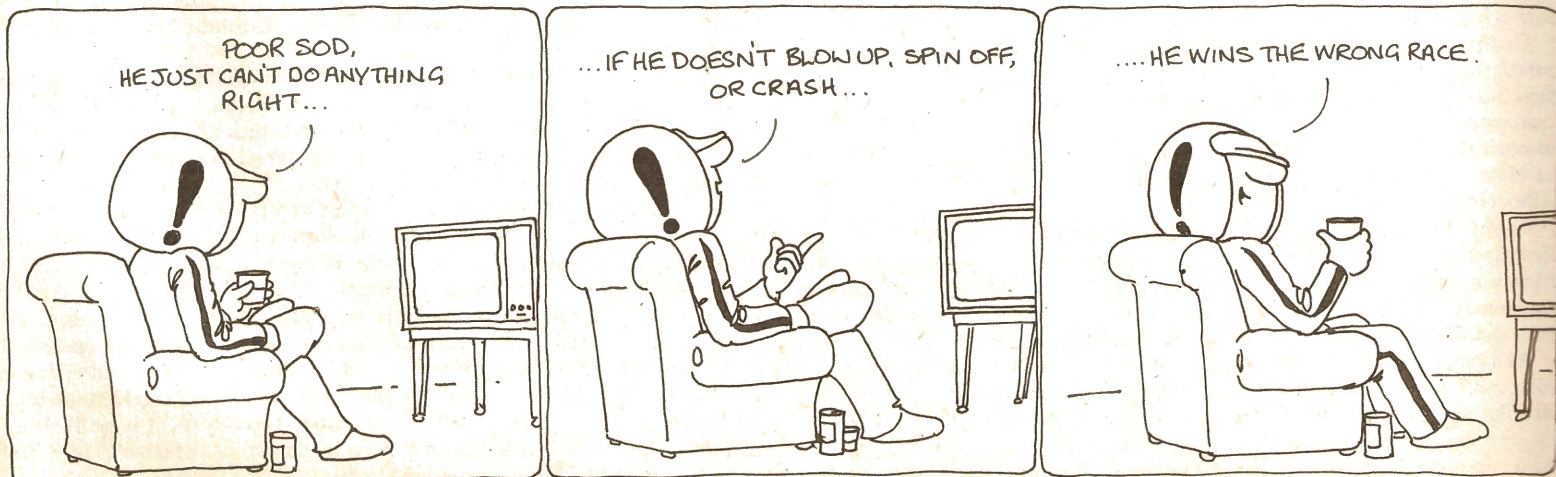
For further information, you should refer to Doug Nye's excellent book *Motor Racing Mavericks* (chapter 19), and for a better photograph a book compiled by Lyle Kenyon Engle, *132 of the Most Unusual Cars That Ever Ran At Indianapolis*.

MELKSHAM, WILTSHIRE

MARIDGWAY

Catchpole

by Barry Foley



10 Then as now? 25

Ford Capris dominated the Spa 24 hour race 10 years ago this week (AUTOSPORT, July 27, 1972). They completely annihilated the BMW opposition, by taking the first three positions and holding them to the end. The race was actually won by the German pairing of Jochen Mass and Hans Stuck Jnr with a five lap advantage at the end. The Dieter Glemser and Alex Soler Roig partnership looked set to take second place, but in a virtual, but staged dead-heat, with the Gerry Birrell and Claude Bourgoignie car, the runner's-up spot was in fact given to the latter pairing, because having started further back on the grid, the race organisers deemed the car to have travelled further.

Star of the race was John Fitzpatrick whose BMW blew its engine shortly before half-distance, Fitzpatrick being bundled into the team's second car in which he drove magnificently to take fourth place, the Capris being too far ahead for even Fitz to catch them.

The last round of the Manufacturers' title at Watkins Glen was won, inevitably, by Ferrari, thus



Drive of the race — Fitz in the BMW.

closing the season as it had continued all year, with Ferrari dominating the whole series, having won every round of which they had entered. This time victory went to the Mario Andretti/Jacky Ickx car, in a tremendous last-hour spurt, overtook the Tim Schenken/Ronnie Peterson car that had led for most of the race; thus transforming what had been a dull and boring race.

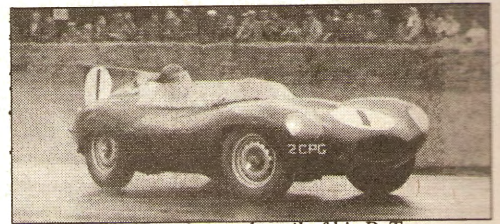
John Surtees was the surprise winner of the European F2 Championship round held at Imola when his Matchbox Surtees TS10 took an aggregate victory after finishing fourth and third in each of the two 28-lap parts. Surtees' win came after his main opposition dropped out, including team-mate Mike Hailwood, who finished second in the first heat and was leading the second heat until a belt broke on the fuel pump. The winner of the second heat, and second overall was the brilliant Bob Wollek in a Brabham BT38 who also picked up the more important nine championship points as the first non-graded driver.

Pit & Paddock news . . . The BRDC announced that details of a new association had been formed to look after the interests of British drivers. It was to be called the British Drivers Association .

V for Victory and Vanwall ran the headline 25 years ago this week, for at long last a British driver and a British car had won a *grande epreuve* (AUTOSPORT, July 26, 1957). Cheered on by thousands of madly excited enthusiasts, Stirling Moss and Tony Brooks scored a momentous victory for Vanwall in the Grand Prix of Europe, held at Liverpool's Aintree circuit, and realised Tony Vandervell's dream of restoring the prestige of British automobile engineering in its most advanced form and winning with his own car.

But the race was full of heart-stopping moments, including Moss coming into the pits with a sick car. Brooks was called in, still suffering from his Le Mans injuries and Moss went out in his car while Brooks soldiered on in Moss's ailing machine. Stuart Lewis-Evans in the third Vanwall was extremely unlucky to experience throttle linkage failure when running with Moss at the front of the field.

Mike Hawthorn drove well for Ferrari but had the misfortune to pick up the pieces of Jean Behra's disintegrated clutch. This may have cost him the race



Duncan Hamilton hangs the tail of his D-Type out

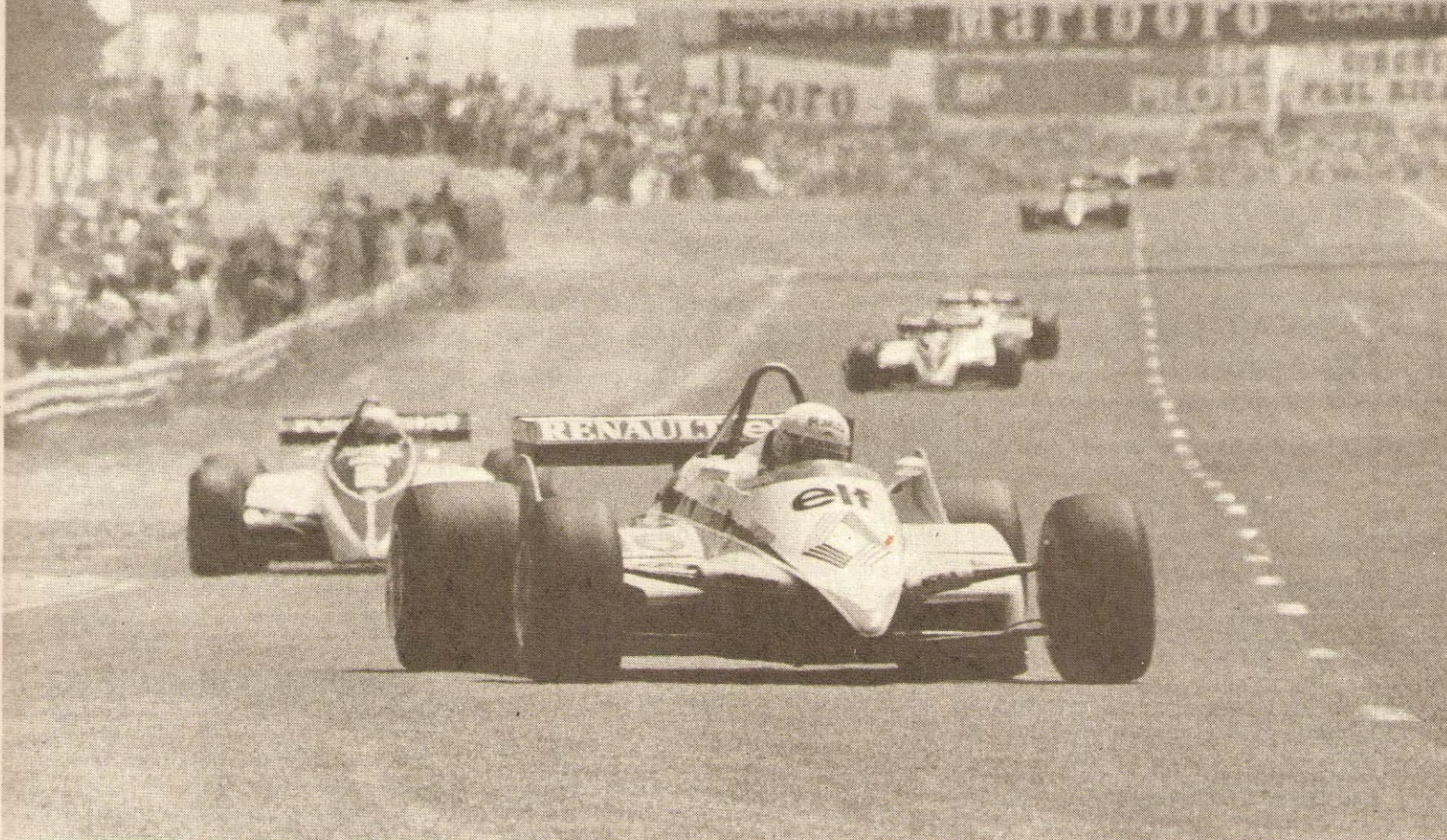
since he was closing rapidly on Behra and Moss was not gaining sufficiently, despite putting in a series of record laps.

The Maserati team had a disastrous day — none of the works cars finished the race. But perhaps one of the unluckiest people was Horace Gould who, in helping to put out a fire in the pits during practice, had his foot run over by the very same car that he was trying to save — Bob Gerard's Cooper. Gould was too badly injured to start the race.

However, one event did keep some people away (just as it did in Montreal this year with the trains): the provincial bus services chose GP day to come out on strike!

In the supporting sports car race, the track conditions which had been ideal for the GP fell foul of the weather, and for the full 17 laps the rain fell. Victory in the wet conditions went to the speedy combination of Archie-Scott Brown and the new Lister-Jaguar, although Roy Salvadori in the very fast 3-litre DBR1-300, took second place and shared fastest lap with Brown.

ORO

CIRCUIT
PAUL RICARDCI
PAUL

For René Arnoux it was a fantastic weekend, taking pole position and the winner's laurels, at his home Grand Prix, and finally breaking his dreadful run of ill luck.

No place like home

Renaults take home victory in 1-2 win — Brabham-BMWs fail while leading — Mass and Baldi in horrific crash — Rosberg takes Cosworth honors — Report: NIGEL ROEBUCK — Photography: INTERNATIONAL PRESS AGENCY.

Two years ago, the last time at Ricard, Gallic pride got a kick in the face. Alan Jones, at his most determined, wore down the Ligiers, forced the drivers to cook their tyres, beat them fair and square. It was, he said, perhaps the most satisfying win of his career.

On Sunday, it was rather different, a turbo wipeout, as expected. Renault, unable to buy a victory — hardly a finish — for several months, scored their first 1-2 in five years of competition, René Arnoux winning conclusively, if controversially, from Alain Prost. And third and fourth were the Ferraris, also with French drivers, Didier Pironi and Patrick Tambay. Fifth — and first in class — was Keke Rosberg's Williams, which narrowly beat Michele Alboreto's Tyrrell.

Again, the white of Brabham-BMW stormed away into a distant lead, with first Riccardo Patrese, then Nelson Piquet, leaving the rest breathless. Both, however, blew up in spectacular, fiery, style. That done, the pitch was clear for Renault, and it was merely a matter of waiting, waiting to see if the yellow cars would hold together. We were fairly sure the red ones would.

As a race, it was immensely tedious, the turbos leading with contemptuous ease, and not even having the decency to fight among themselves. The Brabhams, running with light fuel load and intending to pit, were simply beyond the pace of the Renaults, which were equally superior to the Ferraris, who had gone too conservative on tyre choice and were very low on grip. It

seemed like a very long hour and a half.

We who hoped for a repeat of Derek Warwick's dramatic showing at Brands Hatch were out of luck. The Toleman handled as poorly in France as it had done well in England, and to add to Derek's discomfort he had to run the whole race without a clutch.

Out of luck, too, were the McLarens, John Watson retiring early and Niki Lauda finishing eighth after a tyre stop. Seventh, after a drive which deserved far more, was Derek Daly's Williams, which led the non-turbo runners in the early stages before stopping for, you guessed it, tyres. Thereafter Derek drove strongly back, but seventh was his only reward.

For Grand Prix racing as a whole, the most significant and ominous event of the Ricard weekend occurred on the eleventh lap, when Jochen Mass and Mauro Baldi made contact at Signes, the 180mph right-hander at the end of the Mistral straight. The German's March eventually finished up over the guardrail and halfway into a spectator area. Both drivers were unhurt, but some spectators were less fortunate. We may regard the fact that none was killed as nothing short of a miracle — and this occurred at a circuit which, a decade ago, supposedly set a safety standard at which other tracks could aim. If there is a repeat of this sort of accident in the future, it is unlikely — inconceivable, even — that Grand Prix racing, and those who watch it, will be so fortunate again. What does it take for people to see sense?

ENTRY & PRACTICE

This week the pressure was on everyone, particularly the mechanics. Running Grands Prix on consecutive weekends—save where convenience demands, as Detroit and Montreal—is an absurdity, a very recent phenomenon which nobody likes. Nobody, of course, but a sprinkling of entrepreneurs and accountants who these days see Grand Prix racing as little more than a motorised Benny Hill Show. The TV camera, folks, the all-seeing eye, is what counts in the eighties. People who come in through the gate . . . nickels and dimes.

Our present contorted calendar, therefore, is the bastard child of the World Cup. Quite clearly no one in the broadcasting hierarchy would take a chance on putting out the French Grand Prix, not at the expense of a goalless epic between Fiji and Outer Mongolia or whatever. So the French Grand Prix, and others, had to be rescheduled. Tell you what, let's have it the week after the British. That'll give everyone plenty of time. Let's have it three weeks later than usual, smack in the middle of the French holiday season, when everywhere is booked up and the traffic is solid . . .

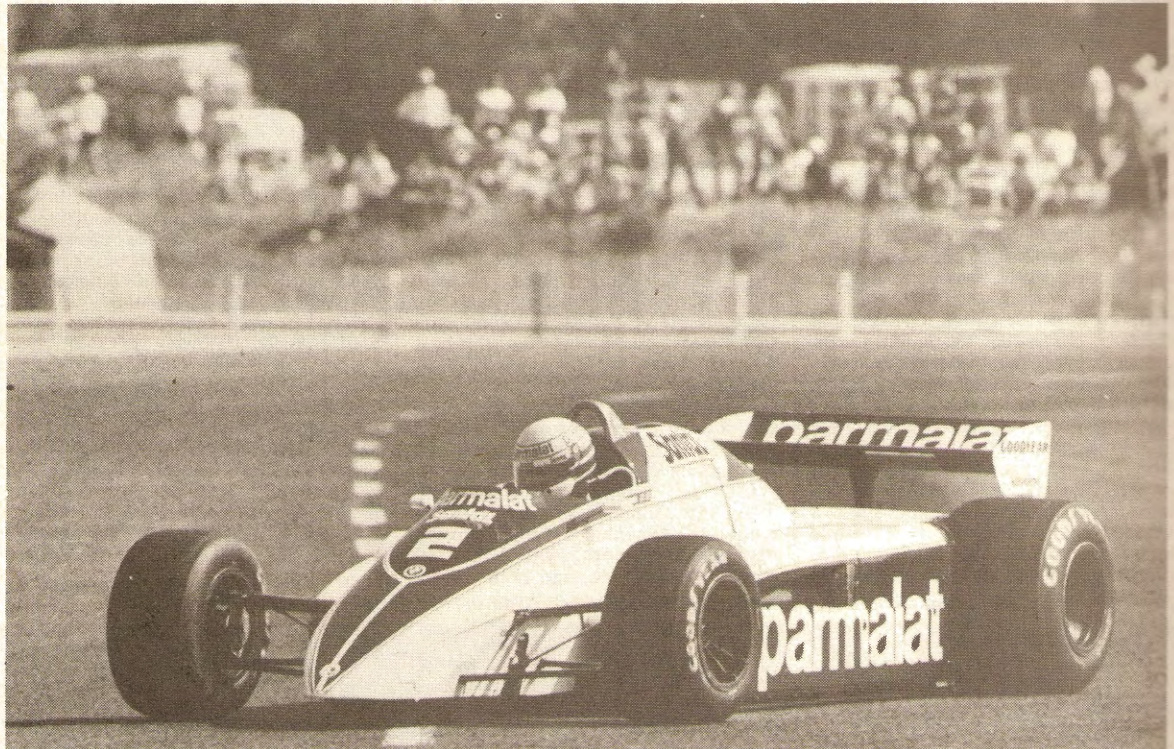
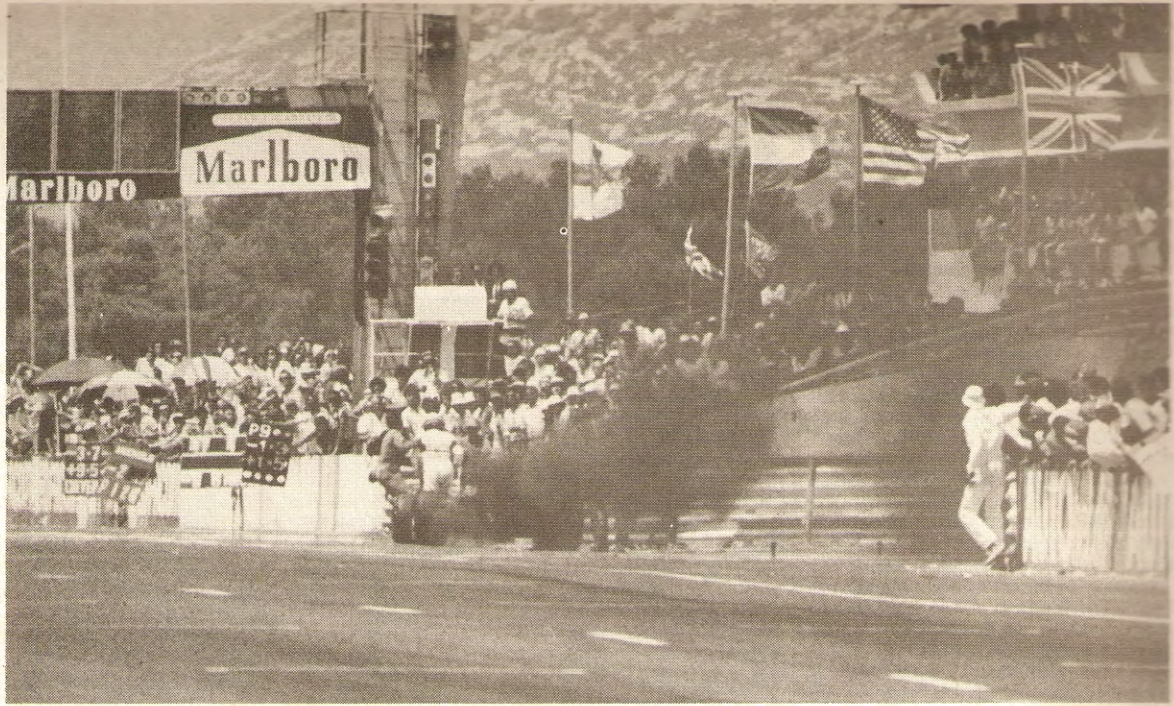
Most of all, you thought of the weary mechanics, working flat out at Brands, packing up, getting on the road immediately, going south, due at Paul Ricard Wednesday/Thursday. First qualifying on Friday. The media timetable was set, and Formula 1 followed the Piper.

Pressure, then, for all concerned, but most of all there was pressure for Renault. Pole positions they have had by the handful, but little in the way of tangible race results. It takes no great analytical brain to imagine harsh words in the boardroom. After the way the team finished the 1981 season, the yellow cars were expected to carry all before them this year. Now, in France, they had to deliver.

In qualifying, as usual, they did. René Arnoux was on the pole for the umpteenth time, and Alain Prost was beside him. No one else was within a second. Then came Ferrari, Brabham-BMW, Ferrari, Brabham-BMW. Ricard, as expected, was a turbo bonanza. "On our timing," commented Keke Rosberg, "I lose two and a half seconds to the turbos down the back straight . . ." The Mistral is, of course, a mile-long test of a driver's ability to hold a steering wheel straight.

Speed trap figures, issued by the organisers during practice, were so ridiculous as to be a joke—surely no one believes that Tambay's Ferrari was *fifty miles an hour* quicker than Lauda's McLaren—but there seems little doubt that the quickest cars, aided in qualifying by a strong tail wind, comfortably exceeded 200mph down to Signes, the daunting right-hander at the end of the Mistral. Straightline speeds were up to the point that none of the turbo drivers went through Signes without lifting. "Two years ago, in the Ligier," mused Didier Pironi, "Signes was flat, no problem. Not now, though . . ."

The Circuit Paul Ricard has always been a matter of compromise, a question of balancing things out, so that you have enough wing to take you through turns such as Signes, not enough to hamper down the Mistral. With turbo horsepower, of course, you can aim at the best of both worlds. René Arnoux may not have been *quite* flat through Signes, but the lift of his foot was barely perceptible, a fraction of a second. Troubled by porpoising on the first day, he was happier with his car—another new one, of course, after the disasters at Zandvoort and Brands—and flew undramati-



Above: Riccardo Patrese was in stunning form comfortably leading the early stages until . . . Top: his hopes went up in smoke

cally round in 1m 34.406s on Saturday afternoon, during which he did only two flying laps.

"I think people think my confidence may be low after the last two races," he said afterwards, "but I feel very relaxed." When Arnoux set his time, it was a second and a half quicker than any other, but during the last few minutes Alain Prost ran him close, and finished with 1m 34.688s. The Renault times should be compared with the 1980 pole position, set by Jacques Laffite's Ligier: 1m 38.88s.

On Friday morning Prost's race car was set up with the hydraulic self-levelling suspension system first seen during the Brands Hatch tests a few weeks ago, and also had carbonfibre brake discs. But Alain missed most of the first untimed session, his car sliding to a silent halt out on the circuit, engine cut, an electrical connection broken. Not convinced that the hydraulic system was quite *au point*, Prost requested its removal before the timed hour, and on Saturday the carbonfibre discs were gone, too.

Having dominated qualifying, then, the yellow cars were everyone's target yet again. "I don't think we shall run away in the race," remarked Alain. "On qualifying tyres the car is perfect, but we have too much understeer on race tyres and full tanks."

Renault's opposition came, inevitably, from Ferrari, with Didier Pironi qualifying third, Patrick Tambay fifth. As usual Didier had a pair of 126C2s, one with transverse gearbox, the other with longitudinal, and as usual he elected to run the older car. "I used the 'longitudinal' car at the end of the untimed session today," he commented on Saturday afternoon, "and set the fastest time with it. But at present the transverse car is more responsive through tight corners, I think, although not so pleasant to drive. I believe the newer car will be better at somewhere like the Osterreicherung, fast corners all the way."

A quick spin on cold tyres put Pironi's car into the catch fence on Saturday morning, but he was able to drive the car out, and damage was light. Beyond that, he suffered a little with what Ferrari

called "fuel vaporisation," but which was rather more than that. No one in the team wanted to say very much, but it seems that the real problem lay in the water injection system which has been used for the last few races. Situated between engine and intercooler, the system on Tambay's car was leaking, which of course had a poor effect on the mixture. Patrick, indeed, had a difficult time in practice, losing most of the Friday morning session after a stone had been flicked up into the injection pump, then stammering round intermittently on its mixture of Agip, water and air.

For the last session, though, all was well. "The engine was fine this afternoon, just a little bit hesitant out of a couple of slow corners, but much better. What annoyed me, though, was that I got held up by Alboreto on my last set of qualifiers—and he was out there on wet tyres . . ."

This is the latest in the endless series of Formula 1 absurdities, dictated by the fatuous rules governing qualifying tyres. ▶

continued

For each fine session you have two sets of qualifying tyres, both marked, and you may not run any unmarked tyres at any stage, unless you officially withdraw from the session. Or unless the tyres are rain tyres. There is no restriction on those. So now, if you have something to check out in a timed session, and you do not care to squander precious qualifiers, you do it on rain tyres. Quite logical, under the existing rules, if fatuous in terms of common sense. Already there are complaints of the dangers of qualifying, with some going banzai through traffic. On wet tyres, the traffic is slower than ever, of course . . .

Fourth and sixth were two more turbos, the BMW-powered Brabhams of Riccardo Patrese and Nelson Piquet, but their days of qualifying were worrying. On Friday morning Nelson blew up the T-car, and in the afternoon both drivers blew up their race cars! In the meantime the Brabham mechanics had worked away on an engine change for the spare, and Patrese was able to do a few laps with it right at the end of the session. The following morning Riccardo suffered yet another blow up in his race chassis.

If the BMWs were fragile in the heat of Ricard, they were mighty impressive when pushing the Brabhams down the Mistral, and other drivers reckoned the white bolides to be the quickest of all in a straight line.

On Friday there was no sign of the team's refuelling equipment which made such a highly-publicised first appearance at Brands Hatch, but the gear arrived the following day, and Gordon Murray — who began to give the matter serious thought after visiting the Indy 500 — said that, yes, it was their intention to use it in the race. On Sunday morning, indeed, practice wheel changes were carried out. The Brabhams would once again be starting light, playing the hare.

All the gloomy forecasts of 'two races' in France seemed to be materialising. Renault, Ferrari and Brabham were out on their own. While it was clear that no normally-aspirated car could offer a realistic challenge on a track with a mile-long straight, the leading 3-litre runners got on with their work, trying to



Michele Alboreto drove as hard and consistently as ever, although just unable to overtake Rosberg during the final few laps.

comfort themselves with the thought that the weather was hot and likely to stay that way, conditions which have hurt the turbos in the past.

Until the last session, Niki Lauda and Keke Rosberg led Group B, but the McLaren and Williams were displaced ultimately by the Alfa Romeo 182s of Andrea de Cesaris and Bruno Giacomelli, the two Italians apparently tied together throughout practice, just hundredths apart. Alfa Romeo drivers' contracts preclude their discussing the cars with the press, but Bruno did allow that "we changed virtually everything in the set-up since yesterday, and the cars are much better. Also," he added, "we put in long gear ratios for today, and we're much quicker down the straight."

On Friday afternoon Giacomelli lost his rear bodywork (a week after having the rear wing detach itself at Brands Hatch!), and this time it gave Derek Daly a big fright. "I tell you," grimaced the Irishman, "you can have a shunt, and that doesn't scare you. But this was different. I saw the bodywork come off the car, and it fluttered high into the air and seemed to hover there. I was sure it was coming down on top of me, but, believe it or not, it fell on a bridge — just as I went under it!"

Daly did well during practice, qualifying 11th, immediately behind Keke Rosberg. The Williams FWO8s sported new rear bodywork, with large air-scoops to each side, and both drivers

were reasonably content. "It's ridiculous how sensitive these cars are," Derek remarked. "One notch on the rear wings is the difference between understeer and oversteer." In the final session Daly cut his engine as he felt it begin to tighten up. An oil line was off, but no major damage was done.

Rosberg was a little mystified. "It's hard to understand," he said, "but something has changed — either in the car or the circuit conditions or something — since we were here testing. Then I could go through Signes flat every lap, no problem. Today I went through flat just once." And how was it? "I didn't like it," he replied sardonically. Nor, for that matter, did he like the spare chassis, opting to stick with his race car for almost all of practice. In the final session he ran out of fuel, fortunately near the end of the lap, and the mechanics were able to retrieve the car, get him out again before two o'clock.

After practice Keke was very angry with Niki Lauda, who, he said, had blocked him deliberately during a hot lap. The Austrian was the fastest of all the Cosworth runners in qualifying, two-thousandths of a second of a second ahead of Rosberg. Curiously enough, in the last session, during which most people improved their times, both Williams and both McLaren drivers were slower, which accounts for their being leap-frogged by the Alfas.

As at Brands, Lauda was delighted

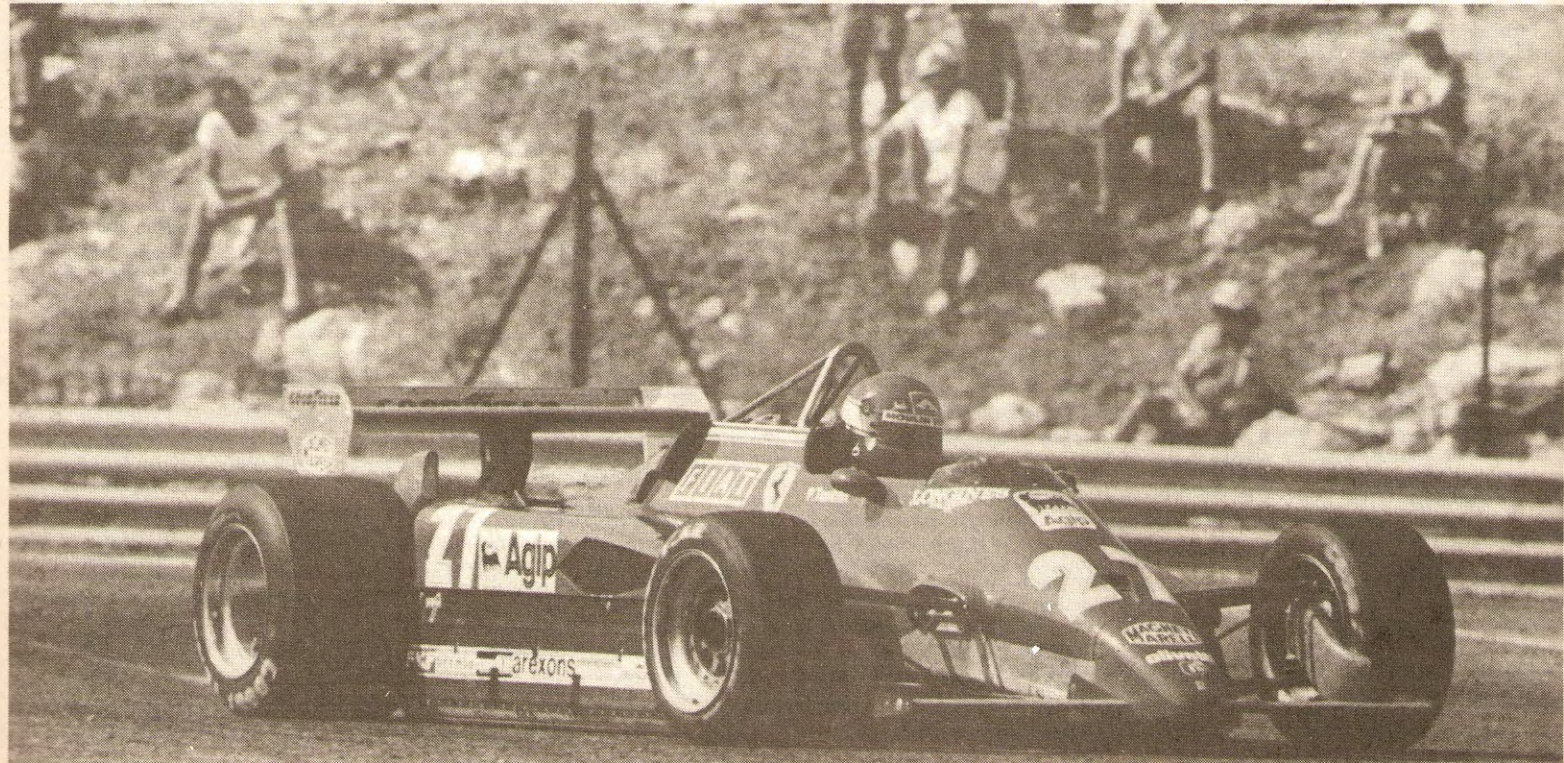
with his MP4B's behaviour, his only irritation being the way the turbos went away from him down the Mistral. "There's nothing we can do, except hope they break," he said. "It's a matter of 100 horsepower at least. Joke." A blown engine on Saturday was his only problem, and that was changed in time for the final session.

John Watson was less satisfied with his McLaren, this being a new race car for the Ulsterman, having been the team's spare at Brands Hatch. Not totally happy with the balance of the car, John nevertheless qualified 12th: "I'd love to start a race from near the front, I really would. But still, I seem to go better in the races themselves than in practice, so I hope that's true tomorrow." With no points from the last couple of races, Watson needed a good finish to keep alive his World Championship aspirations.

Elio de Angelis was less than delighted to discover that the fuel starvation problem, which cost him third place at Brands Hatch, was still present when practice began at Ricard! After the entire fuel system was changed, all was well, but the Lotus 91 was not really at home on the long straights, and Elio had to settle for 13th, immediately in front of Derek Warwick's Toleman.

Derek's performance at Brands Hatch the previous week did not sit well with some members of the Establishment. The Toleman team, of course, has never

Patrick Tambay was his usual impressive self, although he was hampered during the race by a tyre choice that was too conservative, backing Pironi up well.



learned the FOCA handshake, and frankly it showed in the attitude of some of their rivals. "Oh dear, all you journalists, don't you realise you've been conned? Don't you see that they were running that thing with sticky tyres and a light fuel load?" In that case, I thought, they did remarkably well to get 40 laps out of it. Some of the bitchiness directed towards Toleman was quite simply pathetic, and the one team manager who was fulsome in his praise for their showing stood out like a vegetarian piranha.

Many eyes, then, were looking to see Toleman fall flat at Ricard, and they did have more than their share of troubles. On Friday afternoon Teo Fabi's car pulled up ablaze on the Mistral. Caused by an oil leak, the fire was quickly extinguished, but Teo was out for the day. The following afternoon he qualified easily enough, but the same was not true of Warwick.

On Saturday morning Derek had a huge accident at the ultra-quick left-hander onto the Mistral. "You know," he said later, "that the kerbing on the outside is heavily rippled there. Well, I got out onto the ripples, and at the same time it jumped out of fourth. Next thing I was in the catch fencing . . ." Thereafter, until the closing minutes of the final session, the Toleman mechanics worked away on that car, and, with very little time left, Warwick went out, at that point 25th fastest and only just in the race. In the course of just two flying laps he knocked a couple of seconds from his previous best time, and moved up to 14th: "I reckon that the lap after would have been quicker still, but the engine began to splutter out of fuel." A remarkably brave effort.

Michele Alboreto had new streamlined Brabham BT50-type rear bodywork on his Tyrrell for Ricard, and very smart it looked. The Italian's practice days were trouble-free, unlike those of Brian Henton, whose car did not have the slippery bodywork. On Friday morning Brian was sidelined when an engine mounting broke, and in the last session he had to take the spare 011 after his race car stopped out on the circuit with an electrical fault.

The woes of Talbot-Ligier continued. Two years ago Jacques Laffite's Cosworth-powered JS11/15 was on the pole at Ricard, and some indication of the

team's present dilemma may be gauged by the fact that Jacques was unable to match it last weekend. At the insistence of Guy Ligier, only JS19s were brought to Ricard. After testing with new sidepods at Dijon earlier in the week, the team arrived feeling that they had made progress, but the blue cars were still well off the pace.

"We are hopeless on the straight," commented Jacques. "I think we have a little more downforce than before, but we cannot get it through all types of corner. We can adjust the car so it is good in slow or fast corners — but not both! And, anyway, we have to sacrifice downforce for straightline speed here." Laffite qualified 16th, Eddie Cheever three places behind him.

Jean-Pierre Jarier, his Osella among the quickest Cosworth cars down the Mistral, finished up fractionally quicker

than Manfred Winkelhock's ATS, which had very attractive new rear bodywork. The German was again quicker than Eliseo Salazar, who qualified 22nd.

In our innocence, some of us used to believe that reducing the width of Formula 1 tyres would solve all the problems of the sport. It would reduce cornering speeds, increase spectacle, bring back the art of throttle control. Remember all that? Well, at Paul Ricard Pirelli introduced a new rear tyre which was actually 3.5cms narrower than their F2 rear! A narrow tyre obviously gives a straightline advantage, and the smaller 'contact patch' is balanced out by increased downforce from less hindered sidepods. Simply, there is less rubber in the way of the airflow under the car.

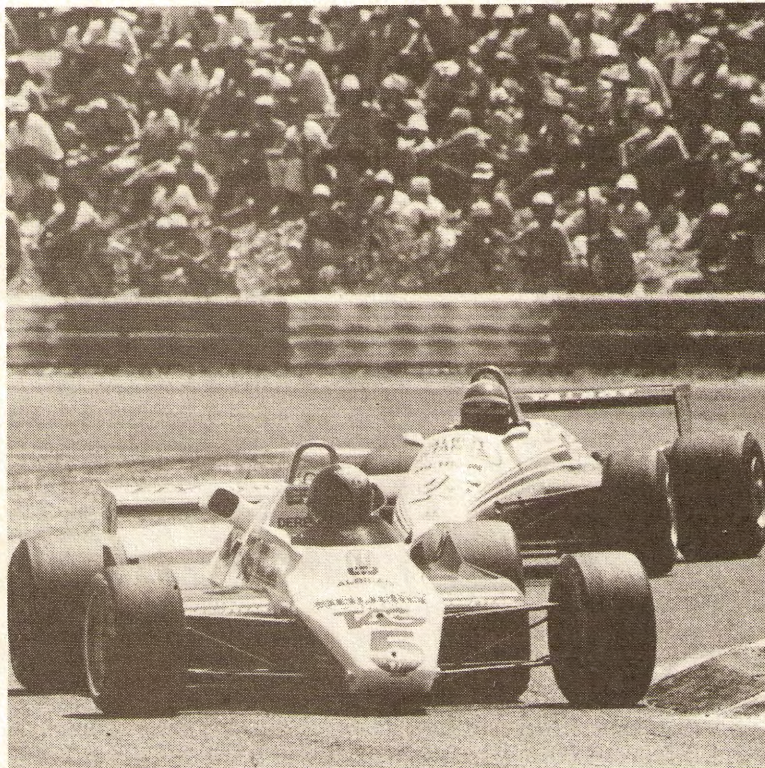
Both Arrows, thus shod, qualified, with Marc Surer 20th and Mauro Baldi 25th, but Chico Serra failed to make it

with the Fittipaldi. The Brazilian ran the new F9 in practice, as well as the F8, but a last-ditch attempt to get the old car in — after the new one's gearchange stiffened up — was thwarted by the lack of fresh qualifying tyres.

After all the problems with his injured arm at Brands Hatch, Nigel Mansell decided to sit out the French Grand Prix, and Geoff Lees took over the wheel of the second Lotus 91. Following a disastrous first day, when he blew an engine in each session, Geoff qualified the car in 24th spot.

Last man in was Jochen Mass, the only March driver to qualify. Avon were in trouble at Ricard, and March personnel spoke gloomily of the race, reckoning that as many as three tyre stops would be necessary. Raul Boesel was actually slowest of all with his 821, the other non-qualifiers being Jan Lammers (Theodore) and Roberto Guerrero (Ensign). The unfortunate Colombian had to sit out virtually the whole of the last session while his engine was changed — and the DFV installed was one taken out at Brands Hatch, having already covered 500 miles!

Derek Daly was running well in the Williams until forced into the pits for a tyre change.



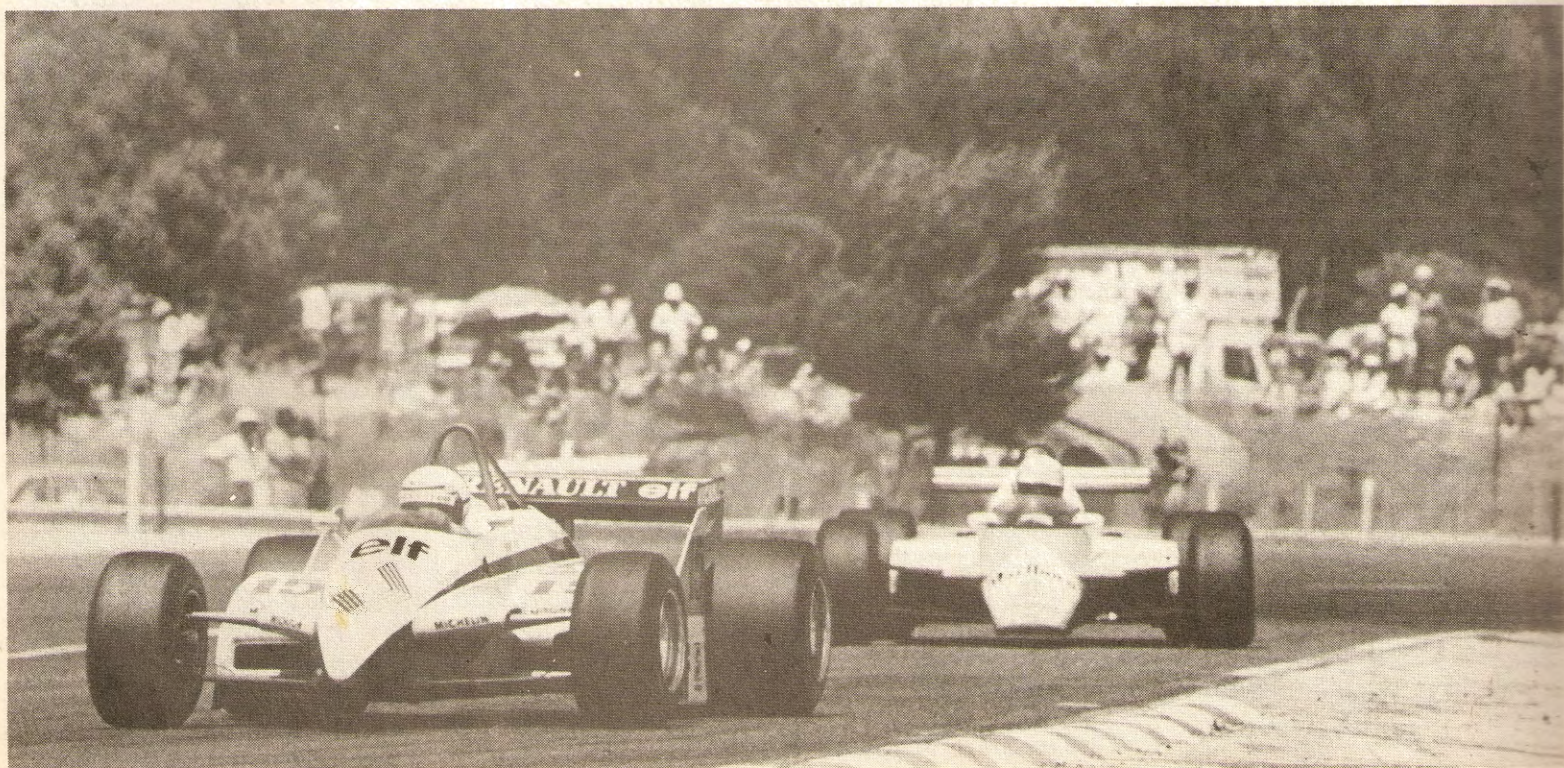
THE GRAND PRIX

Sunday brought more scorching weather, the blue skies tainted only by thick billowing smoke from forest fires, a fact of life in this part of the world at this time of the year. The Circuit Paul Ricard's big enemy has always been the attractions of the beach (and there were many on the stretch in front of my hotel room), but by mid-morning it was clear that large numbers were prepared to sweat it out in the traffic queues up to Le Camp. The organisers claimed the crowd — 70,000 — to be the biggest in the track's history.

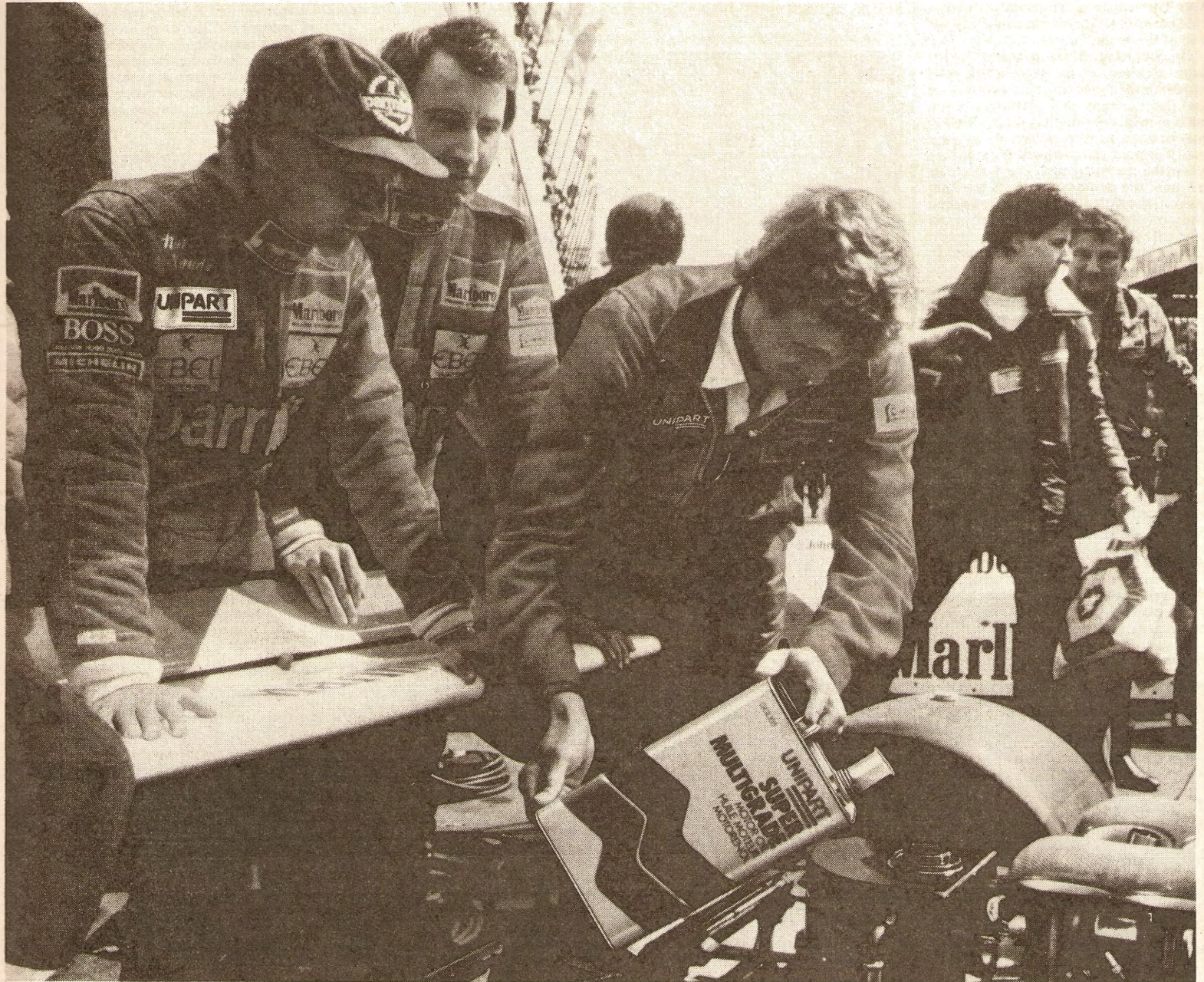
There were few relaxed faces in the Renault pit on Sunday morning, for there was far too much at stake for levity. Rumours abounded that success today was essential, rather than merely desirable. As in practice, pressure. That part had been taken care of, with Arnoux and Prost taking the front row. But the front row has been Renault property for most of the season, so that in itself meant little. Ahead lay the big hurdle.

By Sunday morning the Brabham team had marked out their pits with the long orange stripes seen at Brands, and

Hampered by a broken skirt, Alain Prost fell too far behind the leading Renault (according to Arnoux) for him to take first as the pit signals indicated.



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The answer is yes. Now what's the question?

continued

all was readied for the pit stops. It came as no surprise that Patrese and Piquet easily topped the times during the warm-up, with the Renaults next, then Pironi, the McLarens (Watson again up there during a race day, full tanks, session), Tambay — and Teo Fabi's Toleman . . .

At 1.30 the green light flashed, and the Renaults got away to a perfect start, Arnoux leading Prost into the first corner, with Pironi third. Out already was Jarier's Osella, which broke a driveshaft on the line. And before the end of the lap, the race was over for the luckless Fabi, who coasted to a halt with an electrical fault, engine dead. On the third lap Salazar's ATS went off the road at the flat out left-right after the pits. Five minutes gone, three cars out.

Arnoux and Prost ran at the head of the field for only one lap. By the end of the second René was still in the lead, but both Brabhams had passed Prost, having dispensed easily with Pironi's Ferrari. And after three laps Patrese, looking to be in absolutely rampant form, was marching away, having overtaken Arnoux in a pure horsepower struggle down the Mistral. Were the Brabhams running with half-full tanks? The men in yellow could only hope so.

Four laps: Patrese now led by almost four seconds, having set what was to stand as the fastest lap of the afternoon. Behind him, Arnoux still clung on to second place, but Piquet was in no mood to dally, and at the end of the fifth it was a Brabham-BMW 1-2. Then came the two Renaults. And then came the two Ferraris. Already a pattern was clearly set.

Behind the six turbos was Daly, who had started magnificently and comfortably led the normally-aspirated brigade, followed by Lauda, Giacomelli, Watson, Rosberg and Alboreto. But the domination of the turbos was total, as everyone had predicted. There were two races. It was that simple.

Patrese's run of glory was brief. After eight laps Piquet came through alone, while Riccardo came into the pits, engine blown, rear of the car well and truly ablaze. Quickly the fire was extinguished. The men of Renault began to hope.

Piquet, though, seemed secure



Keke Rosberg, the first normally-aspirated runner home, just managed to hold off the challenge of Michele Alboreto.

enough, pulling out at least another second over Arnoux every time around. Already the field was well spread out: Piquet — Arnoux — Prost — Pironi — Tambay — Daly — Lauda — Giacomelli — Watson — Rosberg. That was the way of it after 10 laps.

On lap 11 there was disaster. Towards the back of the field Mass and Baldi were in a dispute over 18th place, the Arrows sitting in the March's slipstream down the Mistral. At the entry to Signes the Italian ducked out and made to go by on the inside. Mass tried to hold his line, and the two cars touched, virtually at maximum speed.

The outcome was horrifying, both cars hurtling off the road, brushing aside the catch fencing. With today's cornering speeds, the run-off area at Signes is woefully inadequate, and Mass's March was travelling at colossal speed as it hit the tyre-lined guardrail. From there it went straight over, coming to rest, upside down and on fire, halfway into a spectator enclosure. Mass, somehow, escaped with nothing more than a light burn on his shoulder, and Baldi was

completely uninjured. More miraculous by far, though, is that no member of the public was killed. About a dozen spectators were hurt, some with second degree burns, but none was dangerously injured.

For so long the signs have been there. Early this year Pironi's Ferrari crashed during testing at Ricard, and the wreckage finished up in a spectator enclosure, at Beausset, the corner after Signes. At Zolder Villeneuve's somersaulting came within a few feet of the crowd. And now this. Grand Prix racing can count itself lucky that it is now facing a crisis. If there should be another tragedy, such as that at Le Mans in 1955, FISA will count for nothing. The matter will become important. Governments will make the decisions about racing's future — as did that of Switzerland, in the aftermath of the Le Mans disaster . . . In the name of sanity, Formula 1, take your blinkers off before you are put out of business.

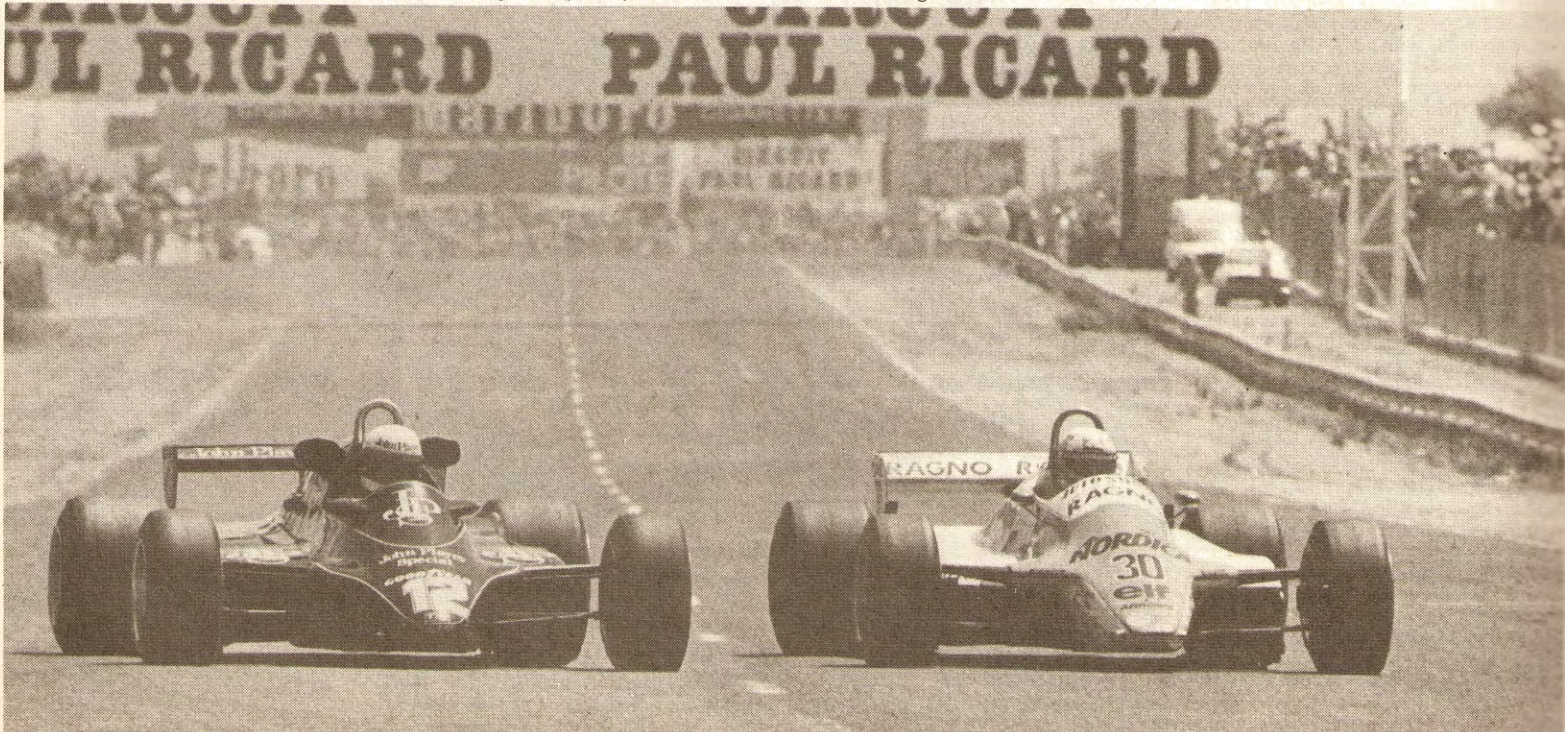
The activity of ambulances and fire trucks, working their way to the scene of the accident, was in chilling contrast with the race itself. Essentially, there was no

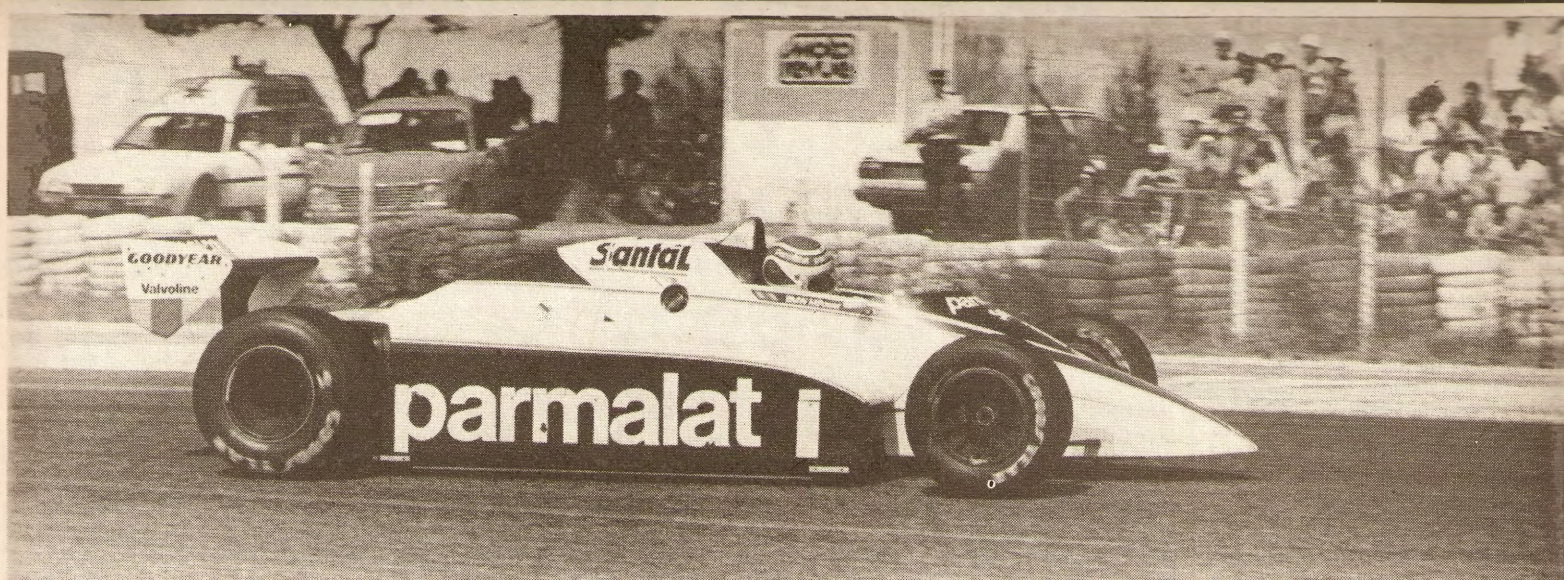
race, merely a fast parade, a procession of white, yellow, red and so on. At the front, the only interest lay in Piquet's progress. How big a lead could he build? When would he stop? *Would* he stop?

On the 12th lap Watson came past slowly, his McLaren sounding dreadful, and at the end of it he duly pitted, a battery connection broken. The mechanics set to work on the car, which was unfortunate for Lauda, who came in after 16 laps, already in need of new tyres. Seeing that the crew was otherwise occupied, Niki continued straight down pit lane, remaining out for another lap before making his stop. Rejoining finally, he had dropped sixth to 11th, one place behind Daly, whose brilliant early showing had come to nought when he, too, required fresh rubber.

Although Piquet continued to extend his lead, the BMW turbo engine had developed a harsh rasp — enough to give further succour to the Renault pit. Arnoux, in second place, was a comfortable distance in front of Prost, and Pironi's Ferrari was a further 20 seconds

Geoff Lees stood in for the injured Nigel Mansell, doing a competent job, while Mauro Baldi had a huge accident in his Arrows with Jochen Mass.





Another unhappy day for the World Champion, his engine blowing again while leading and just before that notorious pit stop . . . ! Perhaps we'll never know.

F1 WORLD CHAMPIONSHIP **11**
FRENCH GP

continued

Only the sound of sirens and the sight of ambulances jarred with the sleepy heat of the afternoon. There was no racing going on.

In the early laps it was already obvious that British fans, hoping for a repeat of Warwick's Brands performance, were in for disappointment. Derek had lost his clutch, pitting on lap 14 to have it freed, at the same time taking on new tyres, of course. Thereafter the car ran on to the finish, but it was a frustrating afternoon for Toleman.

For Brabham, it was more than that. At the 24th lap Piquet's engine blew up mightily, leaving the Renaults first and second. "Why," mumbled one of the pit crew, "did we ever start talking about bleedin' pit stops? Since then, we've been packing up by half-distance . . ." Nelson's lead, by the way, was 22 seconds at the time of the explosion.

Lap 25: Arnoux — 10 seconds — Prost — 16 seconds — Pironi — 15 seconds — Tambay — 20 seconds — Rosberg. Getting the picture? This was one tedious motor race. The only hope of a scrap lay in Alboreto's attempts to close on Rosberg, who was in some difficulty with blistered tyres. Behind these two, Daly had made a good recovery after his tyre stop, dispensing with both Alfas, but too far behind Alboreto to have a reasonable chance of catching the Tyrrell for a point.

The last half of the race was truly soporific — except back in the Renault pits, where hearts beat fast, where reputations — indeed, futures, according to rumour — were on the line. Time after time, though, Arnoux drove past, his car running faultlessly, and most people hoping that, just for once, his luck would hold.

Apart, that is, from Prost. The second Renault had lost a skirt, and was quite unable to keep pace with the leader, and there arose for the Renault management a ticklish problem. Arnoux is a popular man in France, a driver renowned for his ill fortune, a regular pole position starter, without a victory in more than two years. Prost, however, has more points, and remains Renault's best hope for the World Championship. And to a company like Renault, it means a very great deal to have the World Champion on your books. In the late stages, therefore, the signs went out to Arnoux: let Prost win.

We may now have the beginnings of a 'Jones and Reutemann situation' at Renault for little René decided against the plan. "If I had been five seconds, maybe even 10, ahead of Alain, I would have let him win," he remarked after-

wards, "but I was 23 seconds in front . . ."

Finally, mercifully, the 54 laps came to a conclusion, and everyone could repair to the paddock for a long draught of cooling liquid. A lonely race was over, ending in total triumph for Renault, whose cars held together when it most mattered. (Interestingly, they have now won three of the last four French Grands Prix.) But there was considerable coolness to dilute the victory. Prost was not a happy man: "We agreed before the race that, if we were running first and second at the end, I was to win . . ." Arnoux countered that: "I was going well, and I didn't want to take the risk of easing off so much, break my rhythm — or the rhythm of the car. Pironi was not *that* far behind. And, anyway, I have not completely abandoned my own World Championship hopes. The next few circuits on the calendar are ones which suit me very well . . ." It was good to see him win, after so many disappointments.

Pironi was philosophical: "Well, well,

four points, anyway. I knew immediately that we could not run with the Brabhams and Renaults. Patrick and I were too conservative on tyre choice. It was simply a matter of driving round." Tambay agreed: "We had 'A' compound tyres on the right, and very hard 'AA' on the left. It was a mistake, like driving on ice." During the last few laps Tambay's car began to misfire, but nevertheless took a comfortable fourth.

Winner of Class B was Rosberg's Williams, the first non-turbo, just a second and a bit ahead of Alboreto's Tyrrell. "My left rear tyre was badly blistered on the outside shoulder," reported Keke, "and Alboreto gained a lot through the twisty bits. Fortunately we ran very little wing, and I was quicker than him down the straight." Just out of the points, and unlucky to be so, was team mate Daly.

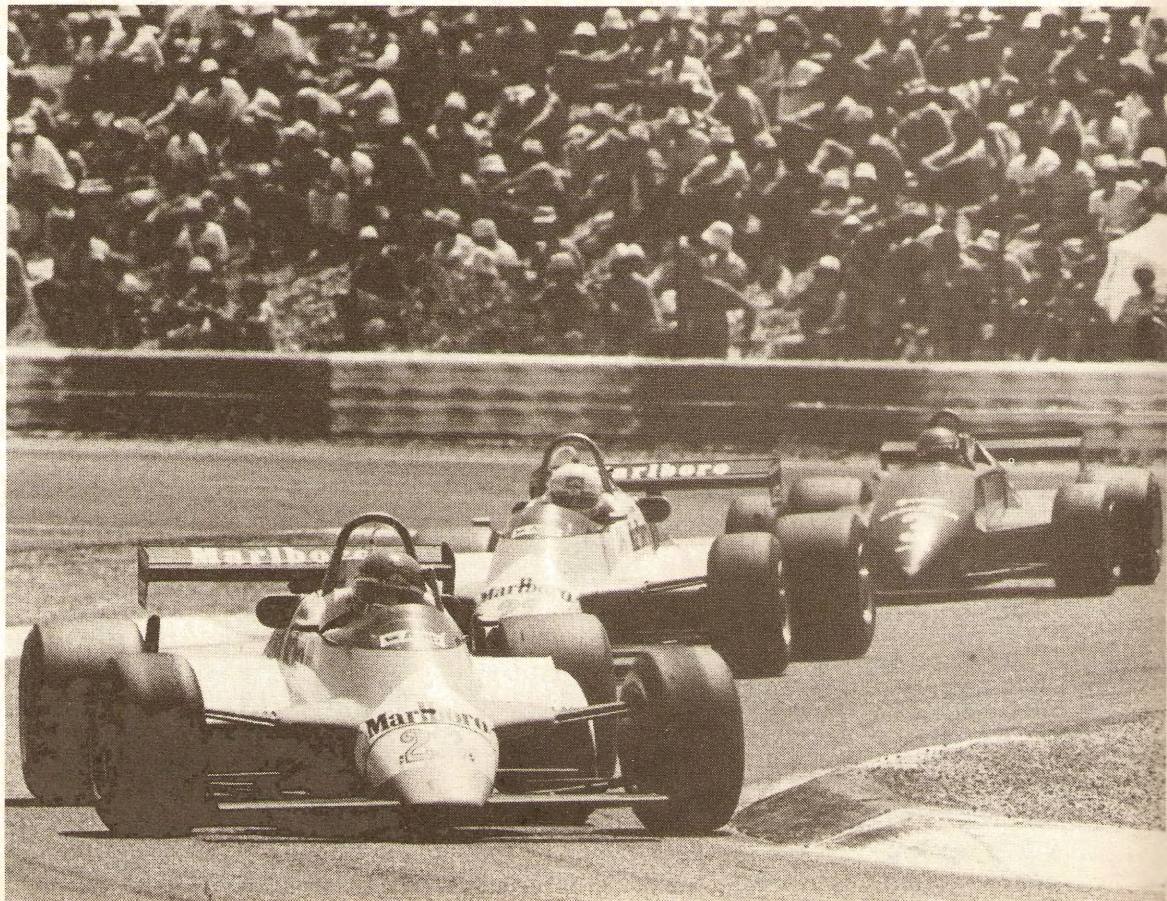
Lauda was out of the hunt after his tyre stop, finishing eighth after latching onto Prost's Renault during the late stages.

"Clever old Rat," said someone afterwards. "He might not have got any points today, but he made sure his sponsor got some TV exposure . . ."

Around at the end also were the Talbot-Ligiers, after a miserable race in which both Laffite and Cheever stopped twice for tyres, Henton's Tyrrell, Winkelhock's ATS, Surer's Arrows, and Lees in the Lotus, which went well after an early stop for tyres, De Angelis had retired the other 91 early in the race with low fuel pressure. Also running at the finish was Warwick.

Victory, then for Renault, domination, as expected, for the turbos. And the pattern may be set now for the next four races. We can only hope that they turn out better than this almost totally forgettable afternoon. It was pleasant to see Arnoux having reason to smile, and it was horrifying to witness the aftermath of the accident at Signes. That, more than anything else is the abiding memory of Ricard 1982. ▶

The two Alfas qualified well but failed to find race form on the day. Here Giacomelli leads team-mate de Cesaris.



swiss grand prix dijon august 29

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Friday, August 27th: Our coach leaves London at 0800 and arrives in Sheerness at 1000 when you check in and board Olau Hollandia. You are then free to enjoy the facilities on board and, of course the motor racing films which we shall be showing in the ship's video lounge. Arriving in Vlissingen at 1900, your courier will show you to your luxury coach for the overnight drive on the motorways through Belgium and France. There will naturally be a number of stops on the way for meals and refreshments.

Saturday, August 28th: Arriving in Dijon during the morning you'll be able to see the day's practice sessions before continuing to Beaune where two nights bed and breakfast have been reserved for you.

Sunday, August 29th: Leaving after breakfast, you drive to Dijon for the Swiss Grand Prix. You return to Beaune at the end of the day's racing.

Monday, August 30th: After breakfast the coach will take you to Paris where there will be a stop for lunch. You then return to Vlissingen where you board Olau Hollandia at 2130 and, after collecting your cabin key, you can relax with a drink in the lounge bar or enjoy a meal in the restaurant.

Tuesday, August 31st: Arrival in Sheerness is at 0700 and for those who have booked it, our coach will be waiting to take you back to London.

Single Room Supplement: £14
London coach service: £5.

TOURGT30

£109

Goodwood Video-Cruise

- * Wine and Champagne Weekend
- * Day and night sailings on Olau-Line

ITINERARY

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Sunday, August 29th: Leaving after breakfast, you drive to Dijon for the Swiss Grand Prix. You return to Beaune at the end of the day's racing.

Monday, August 30th: This morning we have included a visit to a wine cellar in Beaune where there will also be a special tasting. You then continue to Epernay in the Champagne region where there will be a conducted tour of the Mercier cellars by underground railway. One night's half board accommodation has been reserved for you in Vertus, a short distance from Epernay.

Tuesday, August 31st: Leaving Vertus after breakfast, you drive to Paris where there will be a lunch stop before returning to Vlissingen. You

board "Olau Hollandia" at 2130, and after collecting your cabin key, you can relax with a drink in the lounge bar or enjoy a meal in the restaurant.

TOURGT31 £239

Goodwood V.I.P. Club

- * Weekend by Private Aircraft
- * Private aircraft flight from London to Dijon
- * Complimentary Champagne in flight
- * One night's full board accommodation in Beaune
- * Visit to Wine Cellar with tasting
- * Private coach between airport and hotel
- * Grandstand ticket and race programme included
- * Services of a Goodwood V.I.P. Club courier/hostess

ITINERARY

Saturday, August 28th: Your flight by Piper Chieftain leaves at 0900 from London Blackbushe for the 2 hour 30 minute flight to Dijon. Your courier/hostess will serve champagne during the flight. On arrival at Dijon you will be taken by private coach to Beaune where you check into your hotel. Lunch with wine will be served at the hotel. In the afternoon there will be a visit to a wine cellar in Beaune, and in the evening you will have a four-course dinner with wine at a first class restaurant.

Sunday, August 29th: Leaving after breakfast our coach will take you to Dijon for the Swiss Grand Prix. At the end of the day's racing, you return to the airport for the return flight to London's Blackbushe. Once again Champagne will be served in flight.

TOURGT32 £179

Goodwood Jet

- * Long Weekend by Air
- * Scheduled flights on Alitalia
- * Three nights in Como
- * Race Tickets Included

ITINERARY

Friday, September 10th: Your flights by Alitalia departs London Heathrow airport mid-morning and arrives in Milan 2 hours later. Your coach will be waiting here to take you to your hotel where three nights bed and breakfast accommodation have been reserved.

Saturday, September 11th: Today you can choose to stay in Como for sightseeing or just relax by the lake, or join our excursion to Monza to see the day's practice sessions.

Sunday, September 12th: After an early breakfast, you board the coach for the drive to Monza for the Italian Grand Prix. You return to your hotel at the end of the day.

Monday, September 13th: The day is free until

early afternoon, when the coach takes you back to the airport for your flight, again by Alitalia to London Heathrow.

Single Room Supplement: £21
Price for Child under 14: £159

TOURGT33

£83

Goodwood Video-Cruise

- * Long Weekend by Sea and Coach
- * Day sailings on Olau-Line
- * £7 Duty-Free voucher
- * Two nights in Como

ITINERARY

Friday, September 10th: Our coach leaves London at 0800 and arrives in Sheerness at 1000 when you check in and board "Olau Hollandia". You are then free to enjoy all the facilities on board and the motor racing films which we shall be showing in the ship's Video Lounge. Arriving in Vlissingen at 1900 your courier will show you to your luxury coach for the overnight drive through Germany and Switzerland to Italy. There will

naturally be a number of stops on the way for meals and refreshments.

Saturday, September 11th: During the drive today, you will see some of the best lakes and mountains scenery of Switzerland and Italy. Arrival in Como will be in the afternoon and two nights bed and breakfast accommodation have been reserved for you here.

Sunday, September 12th: After an early breakfast, your coach will take you to Monza for the Italian Grand Prix. You return to your hotel at the end of the race.

Monday, September 13th: The morning will be free to relax, sightsee, and take a steamer trip on lake Como before rejoining the coach for the drive back to Vlissingen. Once again there will be plenty of stops en-route.

Tuesday, September 14th: You board "Olau Britannia" at 1200 and you are then free to enjoy the facilities on board. Arrival in Sheerness is at 1800 and for those who have booked it, our coach will be waiting to take you back to London.

Single Room Supplement: £12
London Coach Service: £5

For your free brochure send the coupon to:
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St. James House, Castle Street,
Canterbury, Kent CT1 2QZ,
or telephone 0227 65967

Please send my free Goodwood Brochure

Name

Address

..... A/S15

WINNER	R. ARNOUX	in	RENAULT RE 30B	average speed	124.993	mph
FASTEST LAP	R. PATRESE	in	BRABHAM BT 50	on lap 4	in 1 m. 40.075 s.	129.868 mph
EXISTING RECORD	A. JONES	in	WILLIAMS FW 07B		in 1 m. 41.45 s.	128.108 mph
PREVIOUS RESULT	1980 RICARD. A. JONES 1981 DIJON A. PROST	in	WILLIAMS FW 07B RENAULT RS		average speed	126.140 118.304 mph
WEATHER	HOT. DRY. SUNNY		LENGTH	54 laps of 3.610 mile circuit, 194.94 miles		

ENTRIES

No.	DRIVER	CAR	ENTRANT	FUEL/OIL	TYRES	CHASSIS	ENGINE
1	N. PIQUET	BRABHAM BT 50	PARMALAT RACING TEAM	ELF VALVOLINE	GOOD	BT 50/3	1.5 BMW 4-CYL TURBO
2	R. PATRESE	BRABHAM BT 50	PARMALAT RACING TEAM	ELF VALVOLINE	GOOD	BT 50/4	1.5 BMW 4-CYL TURBO
2T	R. PATRESE	BRABHAM BT 50	PARMALAT RACING TEAM	ELF VALVOLINE	GOOD	BT 50/2	1.5 BMW 4-CYL TURBO
3	M. ALBORETO	TYRRELL 011	TEAM TYRRELL	- VALVOLINE	GOOD	011-5	DFV
4	B. HENTON	TYRRELL 011	TEAM TYRRELL	- VALVOLINE	GOOD	011-2	DFV
5	D. DALY	WILLIAMS FW 08	TAG WILLIAMS TEAM	MOBIL MOBIL	GOOD	FW 08-4	DFV
6	K. ROSBERG	WILLIAMS FW 08	TAG WILLIAMS TEAM	- UNIPART	MICH	MP4B-5	DFV
7	J. WATSON	MCLAREN MP4B	MARLBORO TEAM MCLAREN	- UNIPART	MICH	MP4B-6	DFV
8	N. LAUDA	MCLAREN MP4B	MARLBORO TEAM MCLAREN	- UNIPART	MICH	MP4B-6	DFV
9	M. WINKELHOCK	ATS D5	ATS WHEELS	-	MICH	D5-4	DFV
10	E. SALAZAR	ATS D5	ATS WHEELS	-	MICH	D5-2	DFV
11	E. DE ANGELIS	JPS-LOTUS 91	JOHN PLAYER TEAM LOTUS	- VALVOLINE	GOOD	91-8	DFV
11T	E. DE ANGELIS	JPS-LOTUS 91	JOHN PLAYER TEAM LOTUS	- VALVOLINE	GOOD	91-5	DFV
12	G. LEES	JPS-LOTUS 91	JOHN PLAYER TEAM LOTUS	- VALVOLINE	GOOD	91-7	DFV
14	R. GUERRERO	ENSIGN N181	ENSIGN RACING	- VALVOLINE	MICH	N181-1	DFV
15	A. PROST	RENAULT RE 30B	EQUIPE RENAULT-ELF	ELF ELF	MICH	RE 30B-6	1.5 RENAULT TURBO V6
16	R. ARNOUX	RENAULT RE 30B	EQUIPE RENAULT-ELF	ELF ELF	MICH	RE 30B-8	1.5 RENAULT TURBO V6
17	J. MASS	MARCH 821	MARCH GRAND PRIX	- VALVOLINE	AVON	821-11	DFV
18	R. BOESEL	MARCH 821	MARCH GRAND PRIX	- VALVOLINE	AVON	821-10	DFV
20	C. SERRA	FITTIPALDI F8D	FITTIPALDI AUTOMOTIVE	- VALVOLINE	PIR	F8D-5	DFV
20T	C. SERRA	FITTIPALDI F9	FITTIPALDI AUTOMOTIVE	- VALVOLINE	PIR	F9-1	DFV
22	A. DE CESARIS	ALFA ROMEO 182	AUTODELTA	-	MICH	182-5	ALFA V12
23	B. GIACOMELLI	ALFA ROMEO 182	AUTODELTA	-	MICH	182-3	ALFA V12
25	E. CHEEVER	TALBOT-LIGIER JS 19	EQUIPE TALBOT-GITANES	ELF ELF	MICH	JS 19-01	MATRA V12
26	J. LAFFITE	TALBOT-LIGIER JS 19	EQUIPE TALBOT-GITANES	ELF ELF	MICH	JS 19-03	MATRA V12
27	P. TAMBAY	FERRARI 126 C2	S.p.a. FERRARI S.E.F.A.C.	AGIP AGIP	GOOD	126 C2-061	FERRARI V6 TURBO KKK
28	D. PIRONI	FERRARI 126 C2	S.p.a. FERRARI S.E.F.A.C.	AGIP AGIP	GOOD	126 C2-060	FERRARI V6 TURBO KKK
28T	D. PIRONI	FERRARI 126 C2	S.p.a. FERRARI S.E.F.A.C.	AGIP AGIP	GOOD	126 C2-069	FERRARI V6 TURBO KKK
29	M. SURER	ARROWS A4	TEAM RAGNO-ARROWS	-	ELF	PIR A4-1	DFV
30	M. BALDI	ARROWS A4	TEAM RAGNO-ARROWS	-	ELF	PIR A4-2	DFV
31	J.-P. JARIER	OSELLA FA 1C	OSELLA AUTOMOBILI	- VALVOLINE	PIR	FA1C-004	DFV
33	J. LAMMERS	THEODORE TY	THEODORE RACING	- VALVOLINE	GOOD	TY-02	DFV
35	D. WARWICK	TOLEMAN TG 181	TOLEMAN MOTOR SPORT	BP BP	PIR	TG 181-06	1.5 HART 4-CYL TURBO
36	T. FABI	TOLEMAN TG 181	TOLEMAN MOTOR SPORT	BP BP	PIR	TG 181-08	1.5 HART 4-CYL TURBO

PRACTICE 1

DATE FRIDAY p.m. JULY 23

WEATHER HOT. DRY. SUNNY.

15	A. PROST	1m. 35.802s.
28	D. PIRONI	1m. 36.477s.
16	R. ARNOUX	1m. 36.548s.
1	N. PIQUET	1m. 37.162s.
8	N. LAUDA	1m. 37.778s.
6	K. ROSBERG	1m. 37.780s.
2	R. PATRESE	1m. 38.541s.
27	P. TAMBAY	1m. 38.745s.
5	D. DALY	1m. 38.767s.
7	J. WATSON	1m. 38.944s.
22	A. DE CESARIS	1m. 38.996s.
23	B. GIACOMELLI	1m. 38.997s.
3	M. ALBORETO	1m. 39.823s.
9	M. WINKELHOCK	1m. 39.917s.
26	J. LAFFITE	1m. 40.326s.
31	J.-P. JARIER	1m. 40.370s.
11	E. DE ANGELIS	1m. 40.569s.
4	B. HENTON	1m. 41.109s.
35	D. WARWICK	1m. 41.266s.
25	E. CHEEVER	1m. 41.518s.
33	J. LAMMERS	1m. 41.921s.
17	J. MASS	1m. 41.973s.
30	M. BALDI	1m. 42.162s.
14	R. GUERRERO	1m. 42.270s.
29	M. SURER	1m. 42.603s.
10	E. SALAZAR	1m. 42.822s.
18	R. BOESEL	1m. 43.515s.
20	C. SERRA	1m. 43.562s.
12	G. LEES	1m. 45.647s.
36	T. FABI	9m. 57.645s.

PRACTICE 2

DATE SATURDAY p.m. JULY 24

WEATHER HOT. DRY. SUNNY.

16	R. ARNOUX	1m. 34.406s.
15	A. PROST	1m. 34.688s.
28	D. PIRONI	1m. 35.790s.
2	R. PATRESE	1m. 35.811s.
27	P. TAMBAY	1m. 35.905s.
1	N. PIQUET	1m. 36.359s.
22	A. DE CESARIS	1m. 37.573s.
23	B. GIACOMELLI	1m. 37.705s.
8	N. LAUDA	1m. 38.034s.
6	K. ROSBERG	1m. 38.865s.
11	E. DE ANGELIS	1m. 39.118s.
7	J. WATSON	1m. 39.180s.
35	D. WARWICK	1m. 39.306s.
3	M. ALBORETO	1m. 39.330s.
26	J. LAFFITE	1m. 39.605s.
5	D. DALY	1m. 39.641s.
31	J.-P. JARIER	1m. 39.909s.
9	M. WINKELHOCK	1m. 39.942s.
25	E. CHEEVER	1m. 40.187s.
29	M. SURER	1m. 40.335s.
36	T. FABI	1m. 40.421s.
10	E. SALAZAR	1m. 40.673s.
4	B. HENTON	1m. 40.852s.
12	G. LEES	1m. 40.974s.
30	M. BALDI	1m. 40.997s.
17	J. MASS	1m. 41.579s.
33	J. LAMMERS	1m. 41.714s.
20	C. SERRA	1m. 42.414s.
14	R. GUERRERO	1m. 42.532s.
18	R. BOESEL	1m. 43.099s.

STARTING GRID

DRIVER	TIME	GRID
R. ARNOUX	1m. 34.406s.	16
A. PROST	1m. 34.688s.	15
D. PIRONI	1m. 35.790s.	28
R. PATRESE	1m. 35.811s.	2
P. TAMBAY	1m. 35.905s.	27
N. PIQUET	1m. 36.359s.	1
A. DE CESARIS	1m. 37.573s.	22
B. GIACOMELLI	1m. 37.705s.	23
N. LAUDA	1m. 38.034s.	8
K. ROSBERG	1m. 38.780s.	6
D. DALY	1m. 38.767s.	5
J. WATSON	1m. 38.944s.	7
E. DE ANGELIS	1m. 39.118s.	11
D. WARWICK	1m. 39.306s.	35
M. ALBORETO	1m. 39.330s.	3
J. LAFFITE	1m. 39.605s.	26
J.-P. JARIER	1m. 39.909s.	31
M. WINKELHOCK	1m. 39.917s.	9
E. CHEEVER	1m. 40.187s.	25
M. SURER	1m. 40.335s.	29
T. FABI	1m. 40.421s.	36
E. SALAZAR	1m. 40.673s.	10
B. HENTON	1m. 40.852s.	4
G. LEES	1m. 40.974s.	12
M. BALDI	1m. 40.997s.	30
J. MASS	1m. 41.579s.	17



Special Stage

On the right track

RAC MSA still seek legal clarification

The controversy surrounding the use of bridle paths and footpaths as special stages on rallies is continuing, and there seems no end in sight. Currently the problem is restricted to the Dyfed and Powys police area where recent events have been cancelled because of the uncertainty.

Two contradictory sections of the regulations which affect the running of a special stage as we know it have always existed. One section authorises a Highways Authority to permit a trial of any description, thereby releasing the paths for use as special stages.

But elsewhere in the regulations it states that it is not legal to run a speed trial on a public highway, and a resident in the Radnor area has used this contradiction in the law effectively to stop the sport in the area. The RAC MSA has advised organising clubs not deliberately to encourage competitors to break the law and organise events on such paths.

The paths are numerous in that area and for some time club rallies have been run as a series of short sprints, broken up where the route ventures near a public

right of way. The Dyfed and Powys police have had to take this stand because of the insistence of Mr Bill Evans from New Radnor.

Mr Evans has stated that he has no particular fight with rallying as a sport, but that it must conform to the law as he sees it. His performance in recent years in furthering the cause of the private citizen has been impressive, allegedly insisting on the construction of a bridge to keep open a right of way. He also more recently managed to stop a game of football, where the pitch was laid across another right of way. The technique here was to walk across the pitch during play, and eventually the referee stopped the match.

Already the reaction from local industries — particularly hotel owners, and others involved in the tourist trade — has been swift, as they see the inevitable loss of trade as events are cancelled or moved out of the area.

The situation is extremely complicated, and all parties involved, including the Welsh Association and the RAC MSA, are working hard to establish a suitable settlement.

RAC statement

Following publicity given to the cancellation of Midland Manor's stage rally planned for earlier this year which resulted from differences in particular police areas through interpretation of regulations, the RAC MSA and its legal advisers have been and will continue to take appropriate steps to resolve the problem.

It must be said that no immediate solution is anticipated but the problem is being pursued in a manner which the RAC MSA believe is beneficial to rallying as a whole in this country.

Welsh Association statement

At a meeting of the Welsh Association of Motor Clubs at Llandrindod Wells on July 25, it was resolved that a deputation seek an early meeting with senior officers of the Dyfed/Powys Constabulary with a view to resolving the footpath and bridleway problems on private land in mid-Wales, to enable stage rallies to continue within the police area.

Testing Success

"The best day's testing I've had for a long, long time." That was the way Russell Brookes described his outing on the Peter Russek Manuals Rally at the weekend, when his Andrews Chevette HSR completed the event in 1000 Lakes guise.

The hard surfaces of south Wales, with the ball bearing pebbles littered everywhere, meant conditions favoured a session in readiness for the trip to Finland next month, (where Pace Petroleum will support him) to specifically test suspension. The car actually arrived in racing set up but was off the pace, with a switch to forest spec on the rear improving times considerably.



Brookes — delighted.

Brookes was obviously delighted with the prospects of taking the Chevette abroad again; the last time a British driver finished anywhere near the top of the list on the 1000 Lakes was in 1978 when Andy Dawson took a Datsun Violet to 15th overall and collected the "Best Non-Scandinavian" award.

Brookes is not expected to start the Sanremo round of the World Rally Championship as some thought, but recent talks have encouraged him to nominate the Rally du Vin — one of the final rounds in the West Euro Cup. On that occasion he should drive an Opel Ascona 400, and again Pace will play a supporting role.

No Ford?

Although progress with the competition version of the Escort RS 1700 T is continuing, and the Boreham staff are still firmly committed to the principles of the current car, an appearance on the Lombard RAC Rally is now unlikely. It seems that the production run of 200 base cars is causing considerable problems.

Homologation into Group B by the end of the year is no longer likely and although no date has been set for the first appearance, it is still expected in two wheel drive, turbo specification.

Group B Chevette is Vauxhall's plan

Vauxhall executives are currently preparing to offer the Chevette HSR for transfer homologation from Group 4 into the new Group B. The Chevette will be in showrooms for at least another year, and the company is obviously keen to remain in the sport with a current model. As with all dealings, however, the homologation process is a difficult path.

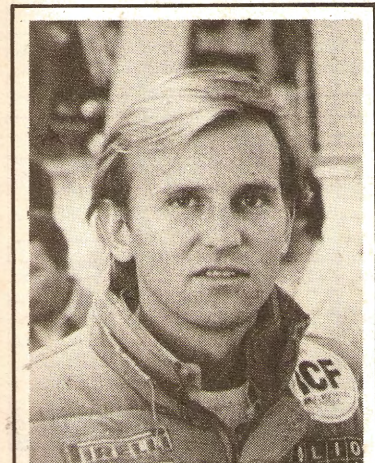
"We have only been advised recently — within the last two weeks — that the relevant automatic transfer from Group 4 is only valid for 1982," commented Roy Cook from Vauxhall, "but we now hope to get most of the vital parts in the HSR into Group B.

"Evolution is obviously still permitted, and we satisfied the inspections for the original HS model when we built 400. That went out of production and we produced 50 to HSR specification which was also inspected by FISA.

"FISA seem to want to reinspect, but it will be hardly possible to give valid inspections, although we have kept details of all the cars which were produced and sold."

Cook sees no problem in pushing the car through complete with the Dellorto carburetors and a proper manifold, and is aware that without the "essentials" the car's competitive life will end in six months' time. The expected FISA ruling concerning cars in Groups 2 and 4 in the future will mean that graded drivers will not be eligible to enter with such cars.

"As a manufacturer," continued Cook, "it is also essential that we support other drivers using the car. For instance, if Russell Brookes wanted to go to Finland next year with the HSR it would be impossible. Unless we can get it homologated".



Another accident

Fulvio Bacchelli and his co-driver Spollon were taken to hospital at the weekend after crashing their Lancia Rally on the Colline di Romagna. During the Italian National championship event the car left the road, and both men are expected to be in hospital for some time with back injuries. The rally was won by Tabaton driving his Lancia Stratos.

Pop the Cork

Haltone have announced that they will again sponsor the Cork 20 Rally, the final round of the Irish Tarmac Championship, in October. A prize fund — the biggest ever on the event — with over £12,000 will be divided among the finishers with emphasis on classes.

To further stimulate interest, the organisers have devised a shorter route, with about 250 stage miles and reduced the entry fee to just IR £95. Included in the competitive sections of the event which runs over October 2/3 will be some of the best old stages in the south, to give the Tarmac Championship a suitably fitting final event.

To cater for those currently without a car suited to the International vehicle regulations, there will be a special Clubmans Category, alongside the main event, and the obvious intention is to attract some of the specialist machinery including Mk3 Escort variants, and perhaps even the latest machinery from Opel.

Stars on show for Ulster challenge

Prior to next week's Belfast Telegraph Ulster Rally, there will be two rally shows to help set the scene. On Wednesday, GM Dealersport host a forum at the Leighinmohr Hotel, Leighinmohr Road, Ballymena which will include the first showing in Northern Ireland of 'Straight round corners', the film of the 1981 RAC Rally and 'The winning team' which features last year's Rothmans Open series. The evening begins at 7.30pm

with tickets available from Crawford Harkness Motors, Larne Road, Ballymena.

The entertainment moves to the Belfast Europa Hotel on Thursday when the programme will include Toyota's film of the World Championship, 'Dancing Queen' and Barrie Hinchliffe's fabulous 'Chariots in the Sun', the film of the 1981 Acropolis Rally. Admission is £1.50 at the door.

Ulster top entries

1 Per Eklund/David Whittock	Toyota Celica
2 John Coyne/Christie Farrell	Talbot Sunbeam Lotus
3 Andy Dawson/Kevin Gormley	Datsun Silvia
4 Ger Buckley/John Caplice	Opel Ascona 400
5 John Lyons/Bill Moffatt	Ford Escort RS
6 Ian Cathcart/Terry Harryman	Opel Ascona 400
7 Cyril Bolton/Derek Ervine	Triumph TR7 V8
8 Austin McHale/John McGee	Vauxhall Chevette
9 Bertie Fisher/Austin Fraser	Ford Escort RS
10 Brendan Fagan/Ronan Morgan	Vauxhall Chevette



Parking problems

When the Peter Russek Manuals Rally ended, several people who had been parked in the start area car park received parking tickets, despite having been told by the organisers that arrangements had been made with the Swansea City Council for free parking. Somewhere there has been a 'breakdown in communications' but Clerk of the Course, John Henderson has asked that anyone who received a ticket should return it to him immediately in order that he can attempt to resolve the issue. His address is Forge Acre, Knelston, Swansea SA3 1AR.



Escape for Gass

Castrol/TV Times Challenge winner, George Gass had a lucky escape on the fourth stage of the Peter Russek Manuals Rally when he crashed head on into a tree in his Opel Ascona. "There were a group of spectators walking down the track and I had to swerve to avoid them," said Gass afterwards. "We must have hit the tree at about 60 mph. If we had not hit head on the damage might have been more serious, and it looks as though the car can be straightened without too much trouble." Thankfully the crew suffered only minor injuries — Gass is nursing a bruised chest from the belts and co-driver John Duke has a cut leg.

Stuart impresses — for the last time perhaps?

Mike Stuart's first event since his horrific crash on the Rothmans Manx Stages in May produced one of the best drives ever seen from the young Chester driver. Unfortunately, financial problems may prevent a repeat of a performance that brought a second place.

There were no ill effects from the Manx accident to mar Stuart's performance — he set out to win and very nearly did. A steady start brought top ten placings on the first two stages before he took fastest time on the long third stage by a massive 38 seconds from Bill Dobie. The next stage however saw him delayed in the dust behind Ian Tilke, letting Malcolm Patrick through to take the win.

Stuart's drive was all the more impressive as the car suffered throughout

the day with awful handling problems, bump steering its way through the dusty stages.

Mike and co-driver Frank Rowlands received their awards to a great reception in Swansea where they admitted that the event would probably be their last in this year's series. The support from Bank America Finance was for five events only — the Russek was the fifth — and unless they extend their involvement or another sponsor is found the crew will be forced to withdraw.

At present Stuart is lying third in the Championship, two points behind Phil Collins and with a very good chance of top honours. It would be a great pity if this popular pairing were to be forced to give up now.



Churchill's new Escort

Jeff Churchill's new rear wheel drive Mk3 Escort attracted a great deal of interest at the weekend. The car made its debut on the Peter Russek Manuals Rally having only completed four miles before the trip to Swansea. The car has been built by JC Motorsport and Motor Action of Cardiff and looked a very professional beast indeed. For the Pace/AUTOSPORT National Championship event it was fitted with a 2.2 litre Terry Hoyle engine. It ran well during the rally although it needed a new rear axle at lunch when it was discovered that the traction had destroyed the limited slip differential.

Collins joins hire club

Phil Collins, who still holds second place in the Pace/AUTOSPORT National Championship (despite being one of several drivers to crash out of the Peter Russek Manuals Rally on the third stage) has joined the growing ranks of people to hire rally cars.

In addition to his own Escort (and the car of team mate Roger Chilman), there is now a third red Escort RS at the

Collins stable. It has just been completed and was actually given a shakedown run on the recent ATS Epynt Stages where it ran as course car.

Several enquiries have been made and Kevin Curran plans to occupy the drivers seat for the Telford Stages on September 11. Phil is ready to receive bookings from interested parties and may be contacted on 0981 240681.

Weekend Sport

INTERNATIONAL RALLYING		
Date	Venue	Event/Details
Aug 5/7	Ulster	Belfast Telegraph Ulster Rally — Tarmac Championship, round 4.
Aug 6/8	Madeira	Volta de Madeira — European Rally Championship, round 31 (coeff 3).
Aug 10/15	Brazil	Rally of Brazil — World Championship for Makes, round 7. World Championship for Drivers, round 8.
NATIONAL RALLYING		
Date	Venue	Event/Details
Aug 1	Salisbury Plain	Sort Out Stages Rally (Farnborough & DMC/Mid Thames CC)
July 31/Aug 1	Wiltshire	Start: High Post Hotel, Amesbury, Wilts. 8.00am
July 31/Aug 1	Essex	Breckland Rally (West Essex CC).
	Surrey	Bryan Hatton Rally (Southern CC).

Louise gets the points

One of the outstanding performances of the Peter Russek Manuals Rally at the weekend came from the young Scots shepherdess, Louise Aitken. She has threatened to take the MCD Services Escort RS2000 to Group 1 victory on several occasions this year but in Wales she also finished fourth overall.

At the prizegiving in Swansea there was further cause for celebration as she, and co-driver Ellen Morgan were presented with the 'Man (or should it be 'person') of the Rally' award. It had been an impressive performance and the girls were given a tremendous ovation as they collected their prizes. The result takes them into the lead in Group 1 and further extended Ellen's lead in the co-drivers section — they even have an outside mathematical chance of winning the National title outright!

Next week the team head for Madeira where Louise and Ellen tackle the Volta de Madeira behind the wheel of the Group 2 Fiesta. Last year they finished 12th with Ellen taking over at the end, after Louise had been taken ill.

Rally round

The Children's Rally Round to be held today (July 29), organised by the IRDC, has attracted an encouraging array of cars and drivers to entertain the children, all of whom are handicapped. An Audi Quattro, Opel Ascona 400 and Toyota Celica are all to be at Donington Park to give rides to the children along with frog-eye Sprites, MG Midgets and Spartan Tourers.

Among the drivers taking part are Pace/AUTOSPORT Championship leader Malcolm Patrick, twice winner and current leader of the Tricentrol British Saloon Car Championship Win Percy along with Terry Kaby, Jeff Churchill, Brian Wiggins, Terry Pankhurst John Midgley and Richard Iliffe.



Cathcart in Ulster

Ian Cathcart, one of the most promising young drivers in the Pace/AUTOSPORT National Championship will contest the Ulster Rally next weekend with his Opel Ascona 400. Partner on this Tarmac Championship event will be Terry Harryman — who incidentally is producing commercially available pace notes for the rally — and support will come from Team PR Reilly Interpart and GM Dealersport.

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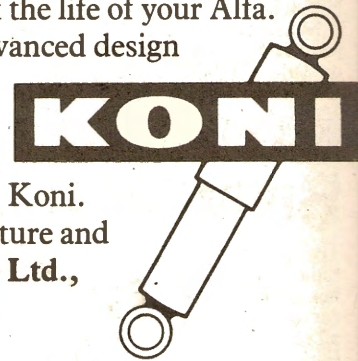
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ITINERARY

Monday, August 23rd: Your flight by Finnair DC-9 jet leaves London Heathrow at 1335. Lunch will be served during the 3-hour flight to Helsinki. Here you join the 35-minute connecting flight to Jyväskylä. On arrival a coach will be waiting to take you to the Raati

Hotel where you stay for 7 nights on a bed and breakfast basis.

Tuesday, August 24th — Thursday, August 26th: Free in Jyväskylä. The city is situated at the northern end of Lake Päijänne in Finland's Central Lakeland district. It is a centre of cultural life, and one of the most popular tourist centres in Finland. Excellent boating and fishing are available, and there are many superb department stores, boutiques and shops. For nightlife there are numerous discos and clubs, and, of course, the surrounding countryside is wonderful. The Raati Hotel is right in the centre of Jyväskylä only 300 yards from the lakeside. All rooms are superbly comfortable with shower, w.c., telephone and radio. The excellent restaurant serves a speciality of steaks grilled on an open fire, and the hotel has its own sauna and indoor heated swimming pool. We have arranged a city sightseeing tour to enable you to get to know Jyväskylä. This will include a visit to rally H.Q. at the Rantasipi Hotel.

Friday, August 27th: For the entrants the day will be taken up with final checks and scrutineering which you will be able to see before the first car leaves the ramp at 1800. Your coach will then take you to see as many stages as possible before returning to your hotel in the early hours.

Saturday, August 28th: The first cars arrive back in Jyväskylä at 0800. After a break you set off again to see more stages during the day. Dinner in a Finnish farmhouse is included tonight.

Sunday, August 29th: Your coach will leave the hotel early to watch the final stage before returning to the finish at the Rantasipi Hotel at 0900. The rest of the day is free for you to catch up on some sleep before the prize presentation at 1800. The Rally Banquet takes place at the Rantasipi Hotel at 2000.

Monday, August 30th: After an early breakfast your coach will take you back to the airport for the return flight to London via Helsinki. Arrival at Heathrow is at 1110. Single room supplement: £56. Price for child under 14: £269

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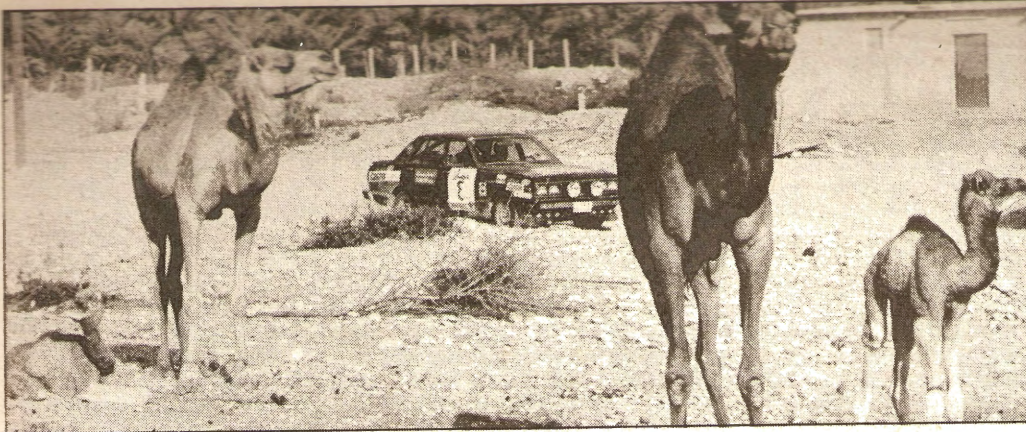
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Leading the Middle East into the spot-light of rallying credibility.

Gateway to Asia

MARTIN HOLMES takes a look at rallying in the Gulf States and examines the sporting, economic and social factors in motor sport's latest sphere of influence.

The Oman International Rally created a surprise in rallying circles when FISA announced that it would qualify for the Pan-African rally series, but this act of subterfuge enabled a rally in the Middle East (and indeed in all Asia) to count for a championship which was officially recognised by FISA, rallying's international governing body. With a public commitment from FISA to widen the boundaries of rallying, and ultimately to have at least one World Championship qualifier in every continent, a move to establish rallying in Asia was obviously timely. With the encouragement in recent years from Rothmans, who brought for the first time top-class drivers to this part of the world, it was appropriate for the Sultanate of Oman to be given the honour of hosting the very first championship rally in Asia.

Already Rothman's influence in the overt sponsorship and organisation of Middle East rallies is on the decline, following the inevitable shifting in policies in cigarette advertising in sport, but what they started as a local advertising activity some three or so years ago has already born fruit in the way that the Oman International Rally has now been internationally accepted. The time for the international growth of rallying is now, and already plans for a bigger event in Oman are being made for a date later this year, for an event in which they hope competitors from other continents will arrive. And once Asia finds its feet in the international hot bed of rallying politics and planning, the benefits gained by Oman will be shared in the many other rallying countries in Asia, such as Malaysia, Hong Kong and of course India, which has already run two Himalayan Rallies.

The Middle East presents a vastly different scenario for its motor sport. Everything is different. Rallying takes place on Thursday and Friday, for in that area of the world, the "weekends" are in the middle of each week. Fuel costs are negligible (though Oman has an artificially high petrol cost, around £1.10 per Imperial gallon: up to three times the cost in other Gulf states), but rallying nevertheless must always comply with the strict demands of the local customs, even when these customs are not fully understood. The first Oman Rally, when incidentally the only asphalt road in the country was that running from Muscat to Seeb international airport, was cancelled at one day's notice, for reasons which were never explained. Sometimes we think that the world of motor sport is moving faster still. Cultures developed over thousands of years are being up-ended and questioned daily, a situation which leads to unpredictability.

The Middle East has already formed itself into a closely-knit group with rally promotion in mind. The Gulf Rally Challenge, based in Kuwait, has organised its system of unified rally rules, and even refrained from sanctioning the Oman Rally (masterminded by Stuart Gray, an Englishman who has had 20 years of successful

competition and organisation) until their friend and confidant David Richards had approved it on their behalf. Gray had one special problem, which was the change in the Appendix J rules. The GRCA (in their bi-lingual standard regulations) still operate the old Group 1-5 rules, whereas Gray had to translate these into the new Groups. In fact, this meant he could admit the Citroen Visa Super of John Watts, a Dubai resident whose father was a former competition mechanic for BMC in years past, whose car was group B, but it also meant that some cars (notably the Mitsubishi Lancer GSR of the Oman Rally winner) did not comply. Skennerton's car was fitted by the Japanese factory with a special 2-litre engine. In fact, of the 32 cars which started in Oman, 28 qualified in the new regulations, and since two of those who finished did not, it meant that even the last driver to finish scored Pan-African points.

Each of the countries active in the Middle East has its own character. Some have stages timed to the second in the traditional way, others (such as Oman) use competitive sections on open roads, in the manner of the Safari or the Bandama. Some countries (especially Jordan, which held their biggest rally to date at the same time as the Acropolis) have a crippling car tax, which encourages the teams active in this area to seek their bases in countries where the tax is lower. Jordan lays one special claim in the world of rallying: it holds the lowest rallies! Some sections run round the Dead Sea region are held at an "altitude" of minus 1300 feet. Dubai does not claim any exciting rally roads though the roads in the rest of the United Arab Emirates are better. Doha, in Qatar, and the island of Bahrain are too small for bigger events, while Kuwait, for all the fanaticism of its enthusiasts, is low down in stage-character. Oman has some of the hilliest and most testing terrain for rallymen. David Richards has in the back of his mind the day when World Championship rallying will come to the Gulf area. In his mind, Dubai would make an ideal base. One leg could go round the UAE, a second up to Kuwait and back and the "sting in the tail" would be in Oman. But things are not right yet. Such a route would mean that cars must pass through Saudi, where lady drivers would have to give up the wheel — and there are no trains at all in the area to overcome this problem.

Rothmans held their Middle East Challenge in 1979 and 1980 and this set the seal on the future. With the expertise they introduced, not only have the countries found their confidence to continue at a high level, witness the formation of the ERCA association, but they are developing their involvement at lower levels. This year in Oman alone there will be four or six rallies, excluding autotests and autocrosses — in a country where the population is thought to be about 1½ million.

The Gulf Challenge produced this year a worthy champion, Chris Wallis. Chris is a man with a remarkable background. He was born in June 1939 in Krakow, Poland, and was interned in Siberia during the war. With his family he finally found his way to Persia

and then India, and in 1948 they went to Uganda. Since 1967 he lived in Kenya, and that year he entered the Safari, on his second rally ever. Driving a VW 1300 he finished, even leading his class at half-distance and two years later he became the first man to finish the Safari at the wheel of an Escort. He started rallying at much the same time as Shekhar Mehta, though without the same background as Mehta was still able to continue his rallying locally. In the mid-seventies he moved to the Gulf area, firstly to Oman and then Dubai, as an engineer with Gulf Air.

Wallis became a Datsun man early in his rallying, when he bought one of the famous 1600SS models which were unbeatable in their day, and he has kept to Datsun ever since. To his regret, the first time he ever got his hands on a works Datsun was only this year, when he drove the Violet GTS in Bahrain — and won. He had already been second behind this car, driving his own Datsun, on the championship opener at Dubai.

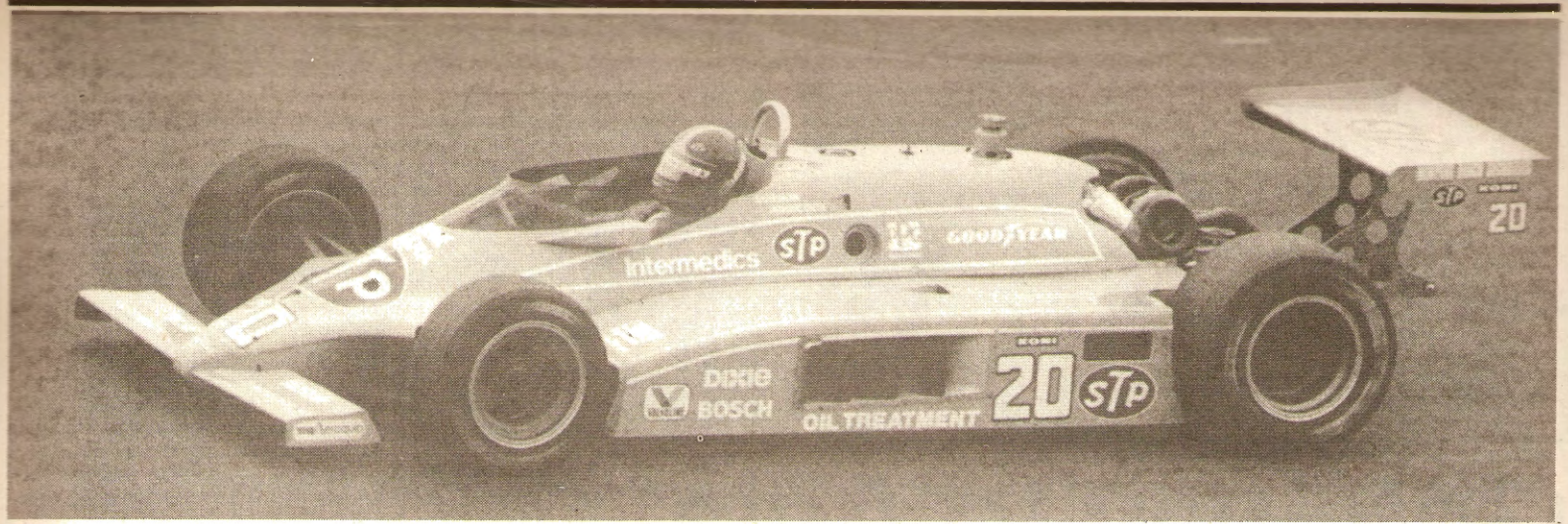
Recently he has been helping the young Joyce Sutherland, the only person to finish all three Gulf Challenge rallies this year. She bought an old 160J Coupé from Wallis, and Wallis arranged for his sponsor Caltex to help out. Her enthusiasm was too much for the old Honda Civic she used to drive, and her rally career only really took off when she turned to Datsun.

The commercial implications of the Gulf Rally Challenge are there for anyone who cares to see. True to form, the Japanese were in at the start, with Datsun running cars for Mehta and Kallstrom with Toyota running a car for Asterhag, at the height of the Rothmans activity. Nowadays, the importance is much wider still. At the halfway point in the Oman Rally, five different types of car were in the top five positions — and not surprisingly they were all Japanese. The eventual rally winner, Captain Alan Skennerton was driving a special Mitsubishi Lancer GSR, a car which the Japanese had fitted with a 2-litre engine. A helicopter pilot from Dubai, Skennerton was sponsored, like the second placed driver Said Al Hajiri, by Castrol. The commercial activities are not restricted to car manufacturers: with Caltex supporting Wallis and BP offering free fuel to any driver who carried their stickers, Castrol's success in Oman was impressive. The Daihatsu Charmant which finished third was locally entered by the Oman Rally Club, but two of the impressive Subarus were entered by a local dealer who offers remarkable discounts to see his cars in action.

The car market in the Gulf is a dream for those who care to be involved. The General Motors dealer in Kuwait has traditionally been the biggest GM dealer outside America, though few American cars are seen in Oman. The Sultan runs hundreds of cars for official use (indeed, in charge of half of these cars is the former foreman mechanic at Team Datsun Europe!) and most of these are Japanese, though the Oman regime is very strongly pro-British in its policies. But always the exotic cars exist on the roads or in the minds of enthusiasts. One rallyman was asking seriously if he could import a road Quattro quicker than by buying from the importer. The model of his dreams had arrived, but his boss had demanded the car for himself. The only condition: it had to be white, with blue interior.

The Castrol importers tell a story which baffled those in the company's headquarters in Swindon. Nobody in England could understand how a Middle East country could be the biggest market for the company's anti-freeze, and the importer encouraged the curiosity by not explaining it was used in air conditioning!

Oman is on its way to important places in rallying, as are other Middle East states. The Oman federation scored a coup by having some of its own drivers B-rated at FISA prior to rally: that caused a lot of trouble when one of them did not let the rival from Bahrain past on a dusty section! The question on everyone's mind is what comes next. If the success of the European championship as a method of pushing up organisational standards and creating uniform standards is a useful guide, then clearly we want to see a genuine Asian rally championship in the near future. As has long been proved with the ECR, the existence of a continental championship is more important than simply providing a platform for naming a champion. They provide a reason for international communication, for mutual promotion, for creating out of existing experience the chance of leading countries out of the darkness of the past into the spotlight of international credibility. ■



Gordon Johncock drove a fine race in the Wildcat to put him in with a chance of achieving the unique Triple Crown sweep.

Walk on the wild side

Johncock scores well deserved victory — Andretti takes storming second after starting from back of the grid — Rahal takes third — Scoring error mars good race — Report: GORDON KIRBY — Photography: JAN BIGELOW.

Things are certainly going Gordon Johncock's way these days. At Michigan two weeks ago he scored his third win of the summer in the second 500-miler of the Indy Car season, thereby taking a firm hold of the top position in the CART/PPG point standings. At 45 years' of age the tenacious little man from Coldwater is having the best year of his long career as he and longtime employer Pat Patrick bounce back from two years in the doldrums.

Johncock's victory at Michigan came much in the style of his win at Indianapolis two months ago as he again fought a mishandling chassis for much of the long afternoon. This time however he and his crew found the right combination for the last hundred miles and Gordy felt he could have held-off any challenge from any quarter. As it was there were to be no last-minute challenges as Rick Mears crashed when one of his tyres was punctured by debris some 150 miles from the flag while a physically exhausted Mario Andretti was forced to settle for second place after starting his spare car from the back of the field following a neck-jarring crash with his pole-winning Wildcat the day before the race.

While Johncock, Andretti and Mears dominated the leader board during the hot, humid afternoon, they had to contend with strong but abortive performances from A J Foyt, Kevin Cogan, Pancho Carter and Don Whittington. Cogan, Carter and Whittington were eliminated by mechanical problems while Foyt was driven into the wall by Hector Rebaque during a confused restart around the 300 mile mark. Despite being trapped in his crashed car for a few minutes and otherwise taking a series of blood-letting wounds to his legs and ankles, the tough old Texan hobbled out of the track's first aid station to declare that he would fly home immediately and return for the next race.

In the end then, the pair of Patrick/STP Wildcats dominated the day with both Johncock and Andretti moving past Mears in the point standings. A distant third place was taken by Cleveland winner Bobby Rahal who passed Al Unser when the latter had to stop for fuel just six laps from the flag. Twelve of the 34 starters survived the 500 miles on the steeply-banked, bumpy speedway with Johncock's green flag pace averaging more than 196 mph!

PRACTICE & QUALIFYING

All the regular runners showed up for the second running of the Norton/Michigan 500 at Roger Penske's own racetrack, located about one hour's drive west of Detroit. Most of the teams had taken advantage of an open day of practice late the previous week so that the pace was fast from the moment that official practice began on Wednesday.

Qualifying took place on Thursday and Friday with the driver's fastest of two flying laps counting. After practice the favourites for pole position were Rick Mears and Mario Andretti, both of whom topped 206mph on Wednesday. Others to break the 200mph mark were Johncock, Kevin Cogan and Don Whittington, the latter making his first appearance since Indianapolis.

The weather was hot (about 95°F) and very humid for both days of qualifying, so that it became important to draw an early place in the qualifying line when temperature and humidity would be most bearable on engines and tyres. For once Andretti had some good luck on his side as he drew a low number and took full advantage of the turn of fortune to take his first pole of the season. Fate was to turn against Mario two days later however when his car got away from him as he made his way across the infamous bump in the middle of the first and second turns.

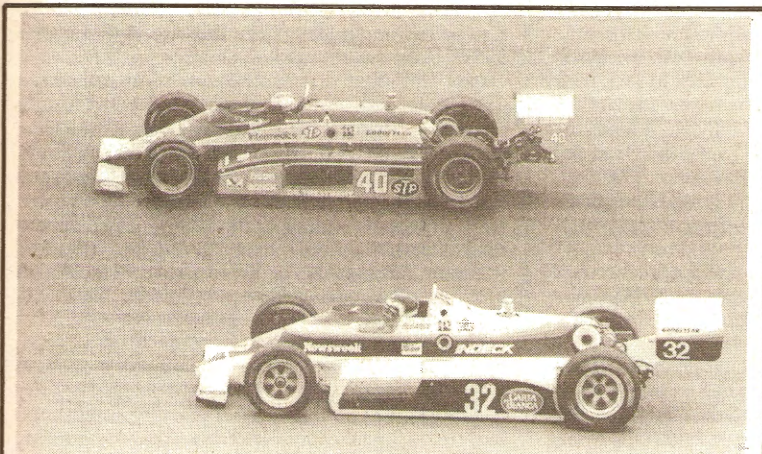
After a long, long slide, the car slammed into the wall, spun and smacked its opposite end against the cement barrier. Andretti jumped out and rushed back to the pits to begin practising his spare car and otherwise nurse a strained

neck. That evening his mechanics changed engines and also installed the shocks and springs from the crashed car on the spare chassis which Mario would have to start from the back of the field.

So it was that Rick Mears found himself once more on the pole with his Gould PC10 (although Andretti did get the bonus points for fastest qualifier) after a late qualifying run which nosed-out Johncock and Whittington. Both Mears and team-mate Cogan had a hard time getting their PC10s properly balanced at Michigan with both drivers preferring the team's lone spare chassis to their regular mounts. By the end of practice the hard-working team had found the right set-up however so that the Penske team were once again looking like solid bets.

There was some discussion about why nobody had been able to approach Tom Sneva's big-boost track record of 1978 (211.792mph) when they had done so at every track they have visited so far this year. Mears explained the problem succinctly: "I think it's mostly because we spend so much time here turning. At Indianapolis you spend a lot less time turning and therefore scrubbing-off speed, but here you are fighting the scrub for more than half the time and because it's high-banked, you really need the horsepower to keep your speed up. The bumps have got a lot worse over the winter as well and I guess that adds to the problem a little bit."

With Andretti moved forcibly to the back of the field, Mears took-up his pole position beside Johncock and Don Whittington, the latter having shown the other March drivers a thing or two by



Mario Andretti passes Hector Rebaque, who was responsible for putting out AJ Foyt.

QUALIFYING

Driver	Car	Time	Speed
Mario Andretti	Wildcat-Cosworth DFX Mk8B	35.082s	205.233mph
Rick Mears	Penske-Cosworth DFX PC10	35.326s	203.816mph
Gordon Johncock	Wildcat-Cosworth DFX Mk8B	35.543s	202.572mph
Don Whittington	March-Cosworth DFX 81C	35.582s	202.350mph
Tom Sneva	March-Cosworth DFX 82C	36.203s	198.879mph
Pancho Carter	March-Cosworth DFX 82C	36.252s	198.610mph
Kevin Cogan	Penske-Cosworth DFX PC10	36.328s	198.194mph
A J Foyt	March-Cosworth DFX 82C	36.634s	196.539mph
Bobby Rahal	March-Cosworth DFX 82C	36.674s	196.324mph
Mike Mosley	March-Cosworth DFX 82C	36.676s	196.314mph
Johnny Rutherford	March-Cosworth DFX 82C	36.719s	196.084mph
Al Unser	Longhorn-Cosworth DFX LR03B	36.724s	196.057mph
Geoff Brabham	March-Cosworth DFX 82C	36.739s	195.977mph
Herm Johnson	Eagle-Chevrolet 82	37.577s	191.607mph
Spike Genlhausen	Eagle-Cosworth DFX 81	37.751s	190.723mph
Roger Mears	Penske-Cosworth DFX PC7	37.778s	190.587mph
Chip Ganassi	Wildcat-Cosworth DFX 8B	38.096s	188.996mph
Howdy Holmes	March-Cosworth DFX 82C	38.647s	186.302mph
Tom Bigelow	Eagle Gurney-Chevrolet	38.651s	186.282mph

qualifying his 81C without any skirts. A follow-the-leader pattern quickly developed.

Tom Sneva and Pancho Carter were next in line with their 82Cs while Cogan started the second PC10 from the outside of the second row after a spark plug problem meant that he qualified on seven cylinders. Next up was A J Foyt who missed some of Thursday's practice because he was attending the funeral of sponsor Jim Gilmore's father. A J managed only a single qualifying lap before shutting-off a suddenly rattling engine although he was able to lap at better than 200mph on the last day of practice.

Starting beside Foyt was Bobby Rahal, the year's leading Rookie who achieved another note of personal satisfaction by breaking the 200mph mark for the first time during Saturday's final practice. Following Rahal in the starting line-up were a pair of new Marches, one in Kraco Stereos colours for Mike Mosley, the other in Pennzoil yellow for Johnny Rutherford. Mosley had tested his car extensively before qualifying for his first race with his new team while Rutherford qualified comfortably after only 16 laps of practice. JR's new mount had been built in Doug Shierson's nearby workshop over a hectic 10-day period and Rutherford was extremely pleased to have so much potential at his fingertips.

Another team to make a change in their approach was Bobby Hillin's Longhorn outfit which had turned their Eagle-style "vortex car" into a more conventional "tunnel car". Al Unser was able to qualify the resulting unsorted Longhorn LR03B directly behind Rutherford.

THE 500

Although there was some rain very early on the morning of the race, the dark and ominous cloud cover began to break-up as morning turned into afternoon and the 2pm start (delayed for NBC's live television coverage) approached. Heavy humidity and a blustery wind remained however, so that there was no doubting that another test of physical and mental health lay in wait for the drivers.

Away from the rolling start it was Johncock who seized the lead from Mears, Whittington, Foyt, Sneva, Cogan and Carter while Andretti made short work of the backfield, passing seven cars on the first lap and two more the next time around. Before the race could take proper shape however a couple of early yellows interrupted everyone's rhythm.

The first yellow was a result of some cans of beer littering the fourth turn and when the flagman waved his green flag for the restart there was worse trouble when Herm Johnson's engine suddenly stopped and he was hit squarely in the tail by Roger Mear's car. Johnson's Eagle jumped into the wall, losing its right front suspension while Mears trailed down to the end of the pits before attending to a smashed nose. Also involved were Tony Bettenhausen and Josele Garza who spun into the infield while attempting to avoid the incident.

Away from the next restart, Johncock again took command although he soon had to give best to Rick Mears who steamed around Gordy coming off the fourth turn a couple of laps before Tom Sneva's engine blew-up. That brought out the third yellow of the race and sent everyone into the pits for their first fuel and tyre stops.

The next restart saw Johncock and Mears battling for the lead from Cogan, Whittington, Foyt and Andretti, the latter having made time in the pits and under the yellows. Within the next few laps a couple of front-runners lost contact with the leaders when they were black-flagged for passing the pace car. Both

Whittington and Mosley were brought in for fast "stop and go" penalties and a few laps later Mosley lost more time when he picked-up some debris in his right front tyre which promptly blew in front of the pits. That in turn brought out another yellow and brought everyone back in for their second round of fuel stops.

After the restart, the black flag was again shown because of a pace car-passing manoeuvre, Foyt being the guilty party on this occasion. No doubt fuming, the Texan made a rolling pass through his pit and rejoined without losing a lap before yet another yellow interrupted things. This yellow was a result of Mosley's car losing some of its right side bodywork and away from the next restart the order read: Johncock, Mears, Cogan, Andretti, Brabham, Unser, Rahal, Carter and Foyt. Already in trouble were Whittington who had run into terminal ignition problems, and Rutherford who was also terminally troubled, in his case because of a leaking hose in the turbo system.

Then finally the race at last began to take shape, with Mears again finding a path around Johncock and establishing himself out front. Andretti settled into third place ahead of Cogan, a fast-improving Carter, Unser and then Foyt who was beginning to look like a real contender.

So it went through the next round of fuel stops (the first of the race under the green) with Mears steadily pulling clear and Andretti losing a lap when he stalled while leaving his pit.

Around this time things began to get confused as the scoreboard, track announcer, television announcer and most people in the press-box all fell into general disagreement. Similarly the ladies running the lap charts in the pits found their records in substantial discord with the scoreboard and as the race wore on most lap charts just plain blew-up. It was the only bad part to an otherwise enthralling race and it underlined the fact that CART's weakest link at the moment is frequently atrocious timing and scoring. On an oval this type of shortcoming can lead to anarchy . . .

So it was that the race carried on,

Mears continuing to set the pace from Johncock, Carter and Cogan while Andretti and Foyt hung on, their position dependent upon your point of view. There were times when any one of these six men was the fastest on the track and—scoring confusion aside—the race took on a very interesting appearance.

Just short of the 300-mile mark, the complexion of the race changed quickly however. First of all Foyt was eliminated when Rebaque ran into the back of a slower car as the pack came down for a restart following a short yellow. Rebaque's March shot up the banking and slammed into the side of Foyt's March, pinning the Texan against the wall for a second or two. Both front wheels and the right rear were torn off by the impact and AJ's fine run came to a miserably disappointing end. Last year of course, he broke his right arm badly in a crash in the second turn at Michigan so that the track has hardly been kind to the stealthy Texan.

After being cut from the car and treated for cuts and bruises Foyt emerged from the infield hospital. He spent a few minutes sitting in a car before climbing out to talk to the press and admirers. As he departed the scene he yelled over his shoulder, "I'll be back. This ain't the first time I been hurt in a race car and it won't be the last time either."

During the yellow following Foyt's crash, the field had to run down the pitlane behind the pace car in order to avoid the debris on the front straight. Mears made a leisurely stop during this yellow, making sure his car was in good shape with tyres and wings at optimum settings. When the green flag flew once more, Rick was near the back of the line of cars with Johncock and Andretti at the head of the line.

It did not take Mears long to get around the other cars however and as Johncock and Andretti engaged in a hearty wheel-to-wheel battle the Penske driver began to reel them in steadily. While the Wildcats turned laps in the 197-198mph range, the PC10 was knocking on the door of 200mph and on lap 182 Mears had caught the Patrick twins.

Right away he began his attack but

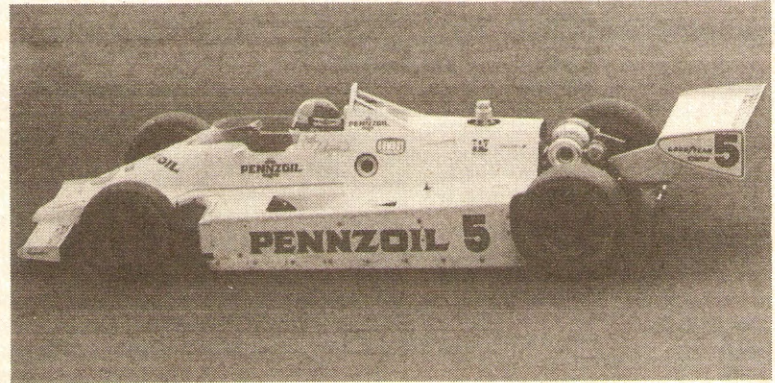
suddenly, in the middle of the second turn, he felt a tyre going soft. A piece of debris had punctured Mears's right front tyre and, just like that, he was a passenger. "The car suddenly started to push and then I realised there was something wrong with the tyre," he later reported. "So I got on the brakes hard and tried to direct the car up the track. Then I saw the wall coming and I was trying to get it in right when—boom—I hit with the right front and then ran along the wall for a little while. The car's not too bad but it's too bad it had to happen. We had 'em handled. I was just cruisin' you know . . ."

A few laps earlier Carter had dropped out because of a seized right front wheel bearing and a few laps after Mears's crash team-mate Cogan was also out of the race when his engine blew-up. Over the final hundred miles therefore the race belonged to the Patrick team as the two Wildcats ran around in unison.

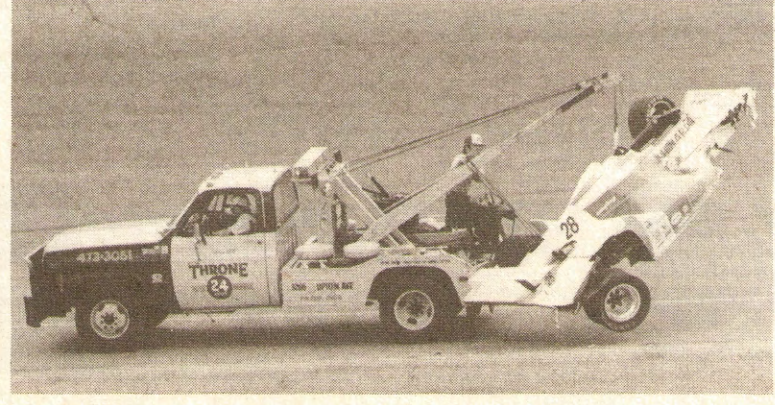
By this time, Johncock had got his car working better than ever and he was soon running away from Andretti who was not only fighting an unbalanced car but also battling cramps in his neck and right leg. Thirty laps from the end, Mario decided to change his wing settings under a yellow but he overshot his pit and then found the green waving for the last time so that he had to soldier on with a wildly "loose" machine. Come the end of the race Andretti was absolutely *knackered*. How he could even keep the car going at the end defies imagination.

Meanwhile, Johncock was scorching home to a thoroughly deserved victory. His win at Michigan means that he now has a chance to duplicate Al Unser's unique Triple Crown sweep of 1978. August 15 at Pocono, the bumpy, irregularly-shaped speedway in eastern Pennsylvania, is the place where Gordy will make his attempt . . .

How confident is he about being able to turn that trick? "Oh I don't think that if I won every race all season long," he replies, "I still wouldn't be that confident until the flag fell." So speaks the voice of experience.



Above: Johnny Rutherford was out for the first time in the Chapparral-modified March 82C, but after qualifying well, he dropped out early with piston failure. Below: The remains of Herm Johnson's Eagle are towed away after having crashed.



- MICHIGAN (USA)**
Jul 18
Budweiser 500
CART/PPG Indy-car
World Series, round 5
250 laps — 500 miles
- 1, Gordon Johncock (Wildcat-Cosworth DFX Mk8B), 250 laps, 3hr 14m 54s, 153.925mph;
 - 2, Mario Andretti (Wildcat-Cosworth DFX Mk8B), 250 laps;
 - 3, Bobby Rahal (March-Cosworth DFX 82C), 245 laps;
 - 4, Al Unser (Longhorn-Cosworth DFX LR03B), 245 laps;
 - 5, Tom Bigelow (Eagle Gurney-Chevrolet), 241 laps;
 - 6, Gary Bettenhausen (Penske-Cosworth DFX PC7), 241 laps;
 - 7, Geoff Brabham (March-Cosworth DFX 82C), 241 laps;
 - 8, Mike Mosley (March-Cosworth DFX 82C), 239 laps;
 - 9, Jim Hickman (March-Cosworth DFX 82C), 235 laps;
 - 10, Tony Bettenhausen (March-Cosworth DFX 82C), 234 laps;
 - 11, Scott Brayton (Penske-Cosworth PC7), 225 laps;
 - 12, Howdy Holmes (March-Cosworth DFX 82C), 216 laps;
 - 13, Bill Alsup (Penske-Cosworth DFX PC9G), 213 laps; no other finishers.

Castrol

ASSOCIATED EVENTS 1st August - 30th August

1 AUGUST

Lichfield. Castrol/NSCC Sprint
Club: Nottingham Sports Car Club Ltd.
Venue: Curborough Sprint Course, near Lichfield, Staffs.
Practice: 09.45. Starts: 14.00.

Peterborough. Castrol East of England Autocross
Club: Peterborough M.C.
Venue: East of England Showground, Alwalton, Peterborough.
Practice: 10.15. Starts: 13.00.

Ollorton. Castrol Press Challenge Grass Track Race Meeting
Club: Nottingham Grasstrack Car Club.
Venue: Amen Corner, 2 miles south of Ollorton, roundabout on A614.
Starts: 13.00.

Stow-on-the-Wold. Bromsgrove Kart Club Race Meeting in association with Castrol
Club: Bromsgrove Kart Club.
Venue: RAF Little Rissington, south of Stow-on-the-Wold, Glos.
Practice: 09.30. Starts: 12.00.

Trowbridge. P.K. Autospares with Lew Mills Catering Autocross Knockout in association with Castrol
Club: Bath Motor Club Ltd.
Venue: Bliss Farm, Trowbridge, Wilts.
Practice: 10.00. Starts: 14.00.

7 AUGUST

Chepstow. Castrol/S.H.W. Plant Hire, Gridnight Road Rally
Club: Tavern Motor Club Ltd.
Venue: Start and Finish—Aust Motorway Services (M4) near Chepstow.
Starts: 23.30.

8 AUGUST

Bromsgrove. The Castrol/Hagley Autotests
Club: Hagley & Dist. Light Car Club.
Venue: Market Street Car Park, Bromsgrove, Worcs.
Starts: 10.30.

Sheppey. Castrol Championship Autocross
Club: Rochester Motor Club.
Venue: Marshlands Farm, Eastchurch, Sheppey, Kent.

14 AUGUST

Randalstown. Castrol Maine Auto-point Single Venue Stage Rally
Club: Mid-Antrim Motor Club.
Venue: Craigmere Quarry, Randalstown, Co. Antrim.
Starts: 11.00.

15 AUGUST

Fraddon. Castrol Autocross
Club: Camel Vale Motor Club.
Venue: Pollawyn Farm, Fraddon, Cornwall.
Practice: 11.00. Starts: 14.00.

Inkberrow. Castrol Inkberrow Autocross

Club: Mini Seven Club, Midlands.
Venue: Great Norbury Farm, Inkberrow, Worcs.
Practice: 10.30. Starts: 14.00.

Thrussington. The R.E.R. Air Services and Castrol Trophy Grasstrack Race Meeting

Club: Leicester Grasstrack Car Club.
Venue: Launsdale Farm, Thrussington, Leics.
Starts: 14.00.

Workshop. 'Co-Pro' Autotest in association with Castrol

Club: Workshop & Dist. M.C.
Venue: Mojo Cash & Carry car park, Playlands Industrial Estate, Workshop.
Starts: 10.45.

21 AUGUST

Knighton. Valkyrie Road Rally in association with Castrol
Club: Redditch & Dist. Car Club.
Venue: Maryvale Farm Services, Knighton, Powys.
Starts: 23.15.

21/22 AUGUST

Inverness. Scottish Road Rally Championship with Castrol: Autumn Rally
Club: Dunfermline Car Club.
Venue: Inverness.

22 AUGUST

Fraddon. Castrol Autocross
Club: Camel Vale Motor Club.
Venue: Pollawyn Farm, Fraddon, Cornwall.
Practice: 11.00. Starts: 14.00.

Kidderminster. The Western Region Punchbowl Autograss Racing Championship in association with Castrol

Club: Border Counties Motor Racing Club.
Venue: Broome Park, Cleobury Mortimer, Kidderminster, Worcs.
Starts: 12.00.

Melton Mowbray. Melton Grasstrack Car Club Race Meeting in association with Castrol

Club: Melton Grasstrack Car Club.
Venue: Wolds Farm, Scaford, near Melton Mowbray, Leics.
Starts: 14.00.

Much Hadham. Championship Autocross in association with Castrol

Club: Stort Valley Auto Club.
Venue: Old Park Farm, Much Hadham, Herts.
Practice: 10.00. Starts: 12.30.

Sheppey. Castrol Minicross & Citroën 2CV Cross

Club: Rochester Motor Club.
Venue: Marshlands Farm, Eastchurch, Sheppey, Kent.

22/23 AUGUST

Northallerton. Castrol Ham Hall Weekend (includes Autotest, Concours, Gymkhana, etc.)
Club: M.G. Car Club, Tyne-Tees Centre.
Venue: Ham Hall, Scruton, Northallerton.
Practice: 10.00. Starts: 13.30.

29 AUGUST

Alnwick. Castrol/Journal Autocross
Club: Alnwick & Dist. Motor Club Ltd.
Venue: North Farm, Embelton, Alnwick, Northumberland.
Practice: 10.00. Starts: 14.00.

Dorking. Castrol Social Climbers Production Car Trial

Club: Mid-Surrey Automobile Club.
Venue: Reigate Road, Dorking, Surrey.
Starts: 09.30.

Ripponden. Castrol/Triumph Sporting Owners Club Hillclimb

Club: Triumph Sporting Owners Club.
Venue: Baitings Dam, Ripponden, West Yorks.
Practice: 11.00. Starts: 13.00.

St. Austell. Castrol August Sprint

Club: Truro & Dist. Motor Club Ltd.
Venue: Tregrehan, St. Austell, Cornwall.
Practice: 10.00. Starts: 14.30.

Stratford-on-Avon. Grand Autograss Open Meeting in association with Castrol

Club: Evesham Autograss Club Ltd.
Venue: A439 (Stratford-Evesham road) at Dodwell, near Stratford-on-Avon.
Starts: 12.00.

Wickford. Ketterin Stages Rally in association with Castrol

Club: Wickford Auto Club.
Venue: Start and Finish: Chichester Motel, Rawreth, Wickford.
Starts: 09.00.

29/30 AUGUST

Blandford. Castrol Autograss Meeting

Club: Weymouth Motor Racing Club.
Venue: Bullburrow Farm, Bullburrow, near Blandford, Dorset.
Starts: 14.00 (both days).

30 AUGUST

Bristol. Western Centre League Autograss Championship in association with Castrol

Club: Bristol South & Dist. Motor Racing Club Ltd.
Venue: Thrubwell Farm, Nempnet Thrubwell, Lulsgate, near Bristol.
Starts: 12.00.

Details correct at time of going to press.



The Enthusiasts Choice



Malcolm Patrick extended his lead in the National Championship by taking a fine win in his Ascona after overcoming the dry and dusty conditions.

Patrick's dust up

Patrick wins and scores maximum points again — Kaby retires on first stage — Aitken impresses and takes Group 1 prize with fourth overall — Carnage in dusty conditions. Report: KEITH OSWIN — Photography: TONY NORTH.

Action in the Pace/AUTOSPORT RAC National Rally Championship resumed in Wales at the weekend with the Peter Russek Rally. Traditionally the event is one of long stages in a compact route to give the crews a tough, high pressure rally where any mistake is costly. To say that this year's event lived up to its reputation would be an understatement.

Nearly half the entry retired in the hot and dusty conditions and the 23 mile third stage saw the end for five of the top 20 cars. The rate of attrition was high but the quality of the action was even higher.

With the winner of the first four rounds of the series, Terry Kaby going out at the end of the first stage, the way was paved for Malcolm Patrick to take the top spot and further continue his bid for the national title. Russell Brookes appeared likely to be the only person to stand in his way but he was undergoing a testing session and was never really in the hunt. The real challenge to Patrick came initially from Terry Pankhurst whose fine effort saw him leading the rally after two stages before retiring after the third. John Brown continued to impress, running steadily and quickly throughout the day, climbing to a deserved third overall at the end.

The Russek was Mike Stuart's first rally since his accident on the last round and he showed none of the apprehension that people expected. Aggressive driving meant he finished second after leading briefly.

As usual Group 1 saw an excellent battle but few would have expected that three of the contenders would claim top 10 placings. Louise Aitken's fourth overall was one of the high spots of the rally but credit should also be given to Steve Green and Kevin Curran for their efforts in the difficult conditions.

A day of surprises certainly, but also one that clearly underlined the depth of talent waiting in the wings should any of the top crews make the slightest mistake.

Port Talbot MC must have some sort of arrangement with the meteorological gods, for their premier event, the Peter Russek Manuals Rally, was again blessed with glorious weather.

Clerk of the Course, John Henderson had planned a route which gave crews just six stages with a total of almost 80 miles within a compact area using the forests in the Vale of Neath. Although entries for the event had arrived slowly at first, the club was able to start 79 cars with a top entry that included most of the leading national contenders. The only name that was missing was that of Ian Hughes who had been forced to withdraw at the last minute when financial assistance, that had been promised, did not materialise. Ian was there though to

watch and learn.

Heading the entry list was the Andrews Heat for Hire Vauxhall Chevette HSR of Russell Brookes which was new for Hunsrück. "We are here to do some tyre and suspension testing in readiness for the 1000 Lakes," said the Inkberrow driver. "I have also got a new co-driver." Sitting alongside Brookes was Matthew Engel, a columnist with *The Guardian*. He was looking nervous and a crash course in dealing with road books, trip meters and punctures, given on the start line, seemed to do nothing to cheer him up!

Terry Kaby brought his all conquering Blydenstein Power Chevette HSR along but there was disappointment as the turbocharged engine had blown up in

RAC NATIONAL CHAMPIONSHIP 5 RUSSEK MANUALS RALLY

testing. The car now had a development lead-free 2.6-litre engine that was still expected to produce around 240bhp.

Last year's winner Malcolm Patrick was at three and returning to what looked like the back seat was Phil Short. Phil was constantly being quizzed about his plans for the local forests on the RAC Rally but was saying nothing. His driver on the other hand had a problem. He had come second to Kaby on three of the first four rounds. This time he had Brookes to contend with as well. Could he get the better of them?

"I don't know. The last time I drove the car on the loose was on the Granite City but as that only lasted 1½ miles I am feeling very rusty!"

Donald Heggie was at four with Phil Collins, lying second in the championship and co-driver Jon Savage leading his section, at five. The Russek was being hailed as his local event. Could he do well?

"It might be local geographically but I have never been in those forests before. Jon says he knows them though, so I hope he can help."

Ian Cathcart and Dave West had a disaster on the Isle of Man and so came to Wales in search of a good result. "Long stages really sort the men from the boys," said West. If only he could have foretold the results...

One face which was a welcome sight was that of Mike Stuart. Using Jeff Churchill's personal Escort RS, the Chester driver was out to prove that there had been no ill effects from his Manx accident. Was he going to take it steady to see how his confidence was? "No way — I'm here to win!"

George Hill and Chris Lord both had new co-drivers for the event. Derek Tucker was deputising for Rony Varley in the Chevette (now fitted with George's 2.6-litre engine that he used on last year's RAC) and Kevin Gormley was sitting in for Brian Rainbow.

Further interest surrounded the entry

of Jeff Churchill who had brought a brand new rear wheel drive Mk3 Escort. Built and prepared by JC Motorsport and Motoraction of Cardiff, the car had a Terry Hoyle 2.2-litre BDX engine. "It has only done four miles," said Churchill, "so we have no real idea what it will go like today." Roger Evans made the point that the Russek was a good event to try it out on — after all if they were to retire the chances were that they knew a local pub!

With the sun already hot and very little breeze, Brookes led the cars away from Swansea and headed toward the first stage near Maesteg with regular co-driver Mike Broad leading the way, just in case Matthew got lost!

Patrick made his intentions clear as he charged through to set fastest time and put the Ascona into a 1sec lead over Terry Pankhurst. The young driver was making the CMA Motorsport/Valvoline Escort really fly. His co-driver Roger Freeman said later, "I heard the engine revving hard and turned to Terry, intending to insist that he change up to top. We were already there! It was obvious that he was driving flat out and our times came as no surprise after that."

Phil Collins had got off to an unusually rapid start and held third but where was Kaby? The answer lay at the end of the

Special Stage Times

SS1, Margam (10m 00s): Patrick, 12m 51s; Pankhurst, 12m 52s; Collins, 12m 53s; Heggie, 12m 57s; Stuart, 13m 01s; Weidner, 13m 02s.

SS2, Argoed (3m 45s): Pankhurst, 4m 44s; Haden, 4m 45s; Collins, 4m 48s; Edwards, 4m 48s; Patrick, 4m 50s; Llewellyn, 4m 50s.

SS3, Cregan (23m 00s): Stuart, 28m 31s; Dobie, 29m 09s; Lord, 29m 12s; Patrick, 29m 14s; Tilke, 29m 18s; Weatherley, 29m 27s.

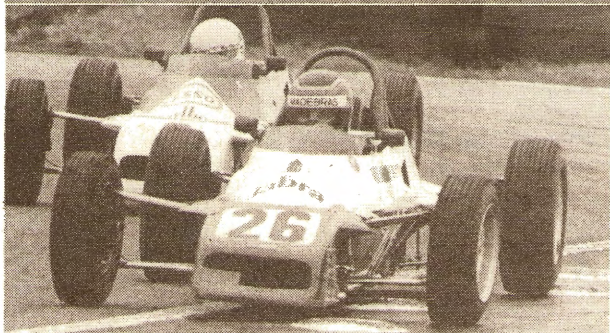
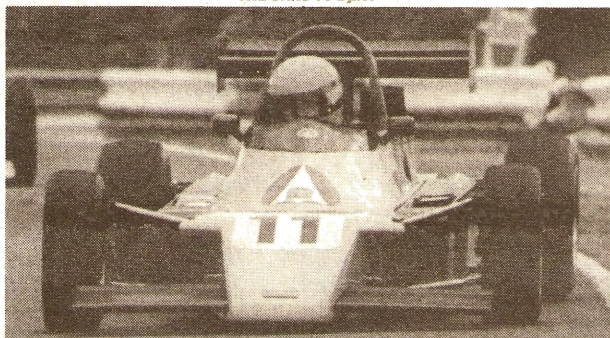
SS4, Rheola (14m 00s): Patrick, 16m 59s; Brown, 17m 06s; Marshall, 17m 06s; Dobie, 17m 12s; Green, 17m 18s; Miers, 17m 18s.

SS5, Rhondda (5m 30s): Wilson, 6m 14s; Brown, 6m 16s; Aitken, 6m 17s; Marshall, 6m 17s; Stuart, Brown, King, Patrick and Dobie, 6m 20s.

SS6, JC Van Hire (22m 30s): Patrick, 27m 39s; Brookes, 27m 49s; Stuart, 27m 51s; Brown, 27m 56s; Aitken, 28m 04s; Hill, 28m 18s.

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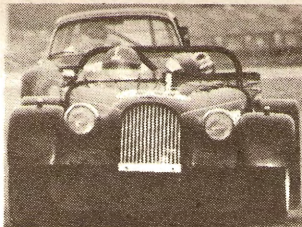
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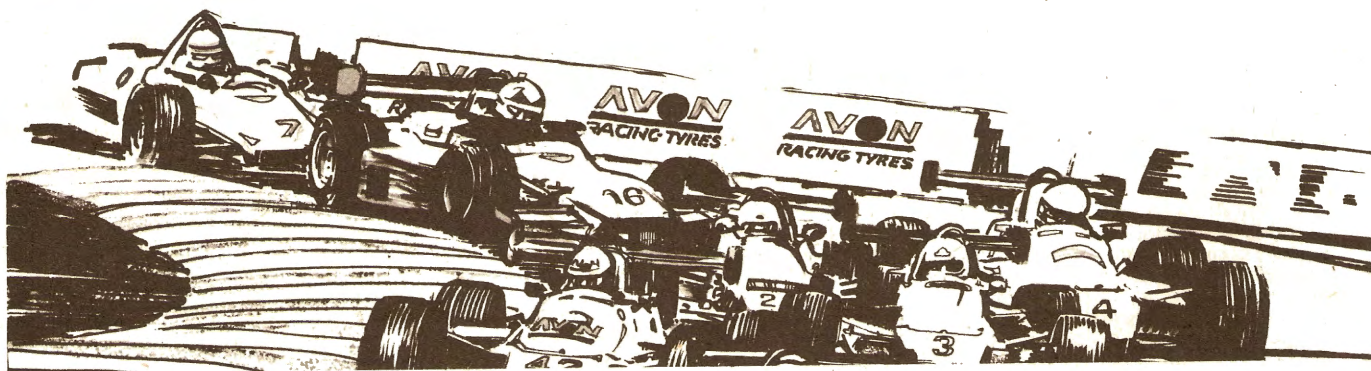
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continued

first stage where the white Chevette sat forlornly, surrounded by mechanics. The car had reached the end of the stage having crawled through the final five miles with the gearbox stuck in second, while the engine could only muster five psi on the oil pressure gauge. The car could not be repaired in time for the crew to run through the stages, just in case they were used on the RAC, and so Kaby and Rob Arthur went spectating.

One of the Chevettes was out — what was happening with the other? Brookes had been first on the road and had a clear view of the stage ahead. He was, however, only 11th. The Chevette was running on racing suspension to see the effect — obviously all was not well.

Fastest time on stage 2, Argoed, gave Pankhurst a 5secs lead from Patrick and Collins but the biggest problem of all was the dust. It flew from the wheels in choking clouds and barely had time to settle before the next car came through. The bright yellow Goodyear arrows were very effective in these conditions, likened to the Granite City earlier in the year. The heat too was causing its own problems as tyres that would normally be ideal for the conditions went off badly. Punctures would play a part in the event throughout the day.

With two stages gone, (10 and 3 miles respectively) the event moved down the Vale of Neath towards Resolven for the rest of the day. A single service area was to be the scene of frantic activity at times and also a rest area for some badly battle scarred vehicles.



John Brown continued to impress, climbing to a deserved third overall.

Ten miles is a long stage but the Russek went better. Stage 3 ran for 23 miles and some crews went with mixed feelings. Most carried two spare wheels and prayed that punctures would not manifest themselves in the early miles. By the time crews reached the service halt at the end of the stage, the whole character of the event had changed.

If ever there was a stage to drive

carefully then this was it. The stage times show that Mike Stuart did just the opposite. The support from Bank America Finance was only for five events, so this would be the last if more money was not forthcoming. Mike set out to impress and when he crossed the finish line he had set fastest time from Bill Dobie by fully 38secs!

Chris Lord was third fastest with



Louise Aitken drove brilliantly to take Group 1 honours and finish fourth overall.

Group 1

Five rounds of the championship gone and five different winners of the group. That is the situation after the weekend when Louise Aitken and Ellen Morgan took the win that they have been threatening for some time. It also puts them into the lead of the overall Group 1 championship.

Group 1 has often tended to be regarded as a separate contest within the main event but on the Russek the contestants let everyone know that they were around in the most emphatic way. The top three in the group also ended the event in the top 10 overall, Louise was fourth, Steve Green was sixth and Kevin Curran finally broke his jinx of setting the pace then failing to finish, by ending the event in ninth place.

Perhaps the main reason for the high placing of the contenders was the conditions that saw many crews suffer punctures during the day. Also the stage surfaces were often covered in tiny pebbles which made it very slippery. Smooth lines that are kinder on the tyres are the only way to conserve rubber while staying on the pace. The Group 1 crews do this by nature and really showed the top runners a thing or two.

Steve King began as series leader and ran steadily for most of the day despite being held up behind Terry Pankhurst on the third stage. By the time the cars started the final stage he was lying 11th overall and fourth in the group but a maximum after an off dropped him to 41st although he still collected valuable points.

Mark Lovell's car was in much better

condition than of late and was doing well until a puncture on the long third stage reduced one wheel to just the spokes, and the West Country driver struggled for the rest of the day. George Gass was also in trouble with punctures but retired on stage 4 when he crashed the Ascona into a tree.

David Mann looked to be having a promising run, getting up to 10th overall on stage 3 but an accident on the next saw him take a maximum from which he never recovered. He finished 36th having survived the day on the same set of tyres.

But the day really belonged to Aitken, Green and Curran with fine performances throughout. It has been a long time since a Group 1 driver got into the top 10 of a National Championship event. At the weekend we had three to applaud.

Malcolm Patrick fourth and suffering, like many others with worn tyres. Brookes arrived, still outside the top 10, with one rear cover worn to the canvas (although remarkably still inflated) and the other reduced to ribbons. They were the lucky ones. Crews who finished the stage breathed a sigh of relief. Behind them lay carnage.

Ian Cathcart's rally ended just two miles into the stage when the car slid off and rolled, finishing upside down nearly blocking the track. Phil Collins too had shot into a ditch where he could not escape and shortly afterwards Francis Tuthill joined him. "I saw Phil trying to warn us but the dust was still hanging and I couldn't see the road. He was like a rabbit caught in your headlamps trying to get out the way but not knowing which direction to take. Still it was a good place to spectate from!"

Collins's team mate Roger Chilman went by and promptly put the car on its roof and George Hill also had a brief moment trying to avoid the gathering party. John Brown's Escort fell onto its side shortly after but was righted and continued. Reg Mullenger was not so lucky at the same spot, retiring along with the rest.

Leader Pankhurst was another to slide off the track, this time resulting in a lack of brakes for the rest of the stage. He struggled through but retired at the service halt to save the car. This let Malcolm Patrick through into second 31secs behind Stuart although, it took an element of luck.

A couple of years ago Tim Brise (with Phil Short alongside) had rolled on the stage. Knowing that the point was a tricky one, Short warned Patrick as they approached. In Patrick's own words, "I knew about it, Phil knew even more about it and warned me but we still went off backwards!" Luckily the excursion was a brief one and the championship leader sped on his way.

Ian Tilke had finished the stage with a shattered rear screen after an off. Co-driver Tony McMahon was having one of those days. He had spent 1½ miles of the previous stage sitting in the engine compartment working the throttle by hand after the cables had broken and now had burns in delicate places. As for the off, "I knew it, called it... and we missed it!"

The 14 miles Rheola stage on the opposite side of the valley saw Brookes get into the top 10 stage times for the first time. The Chevette was now running with forest specification rear suspension without the anti roll bar. Things were improving but it seemed that the team were learning more about what not to use rather than the other way round.

Patrick was running first on the road now and had the advantage of no dust. He was still suffering with a lack of traction and the axle was beginning to make odd noises. Despite this he set fastest time to take the lead that he was to hold to the end of the event. With a lengthy lunch halt to look forward to (where the axle could be changed) the Birmingham dentist was more relaxed but also keeping an eye on John Brown who was now up to fourth.

Ian Tilke had bent the Escort's propshaft on some rocks and the resulting vibration caused them to stop. They had just got going again when they were caught by Stuart. He was unable to pass, and by the end of the stage a 31secs lead had become an 8secs deficit. He was still driving brilliantly despite a car that was bumpsteering its way through the stages. The young man's driving ability was being tested to the full.

Worn out tyres were the main topic of conversation at lunch while crews rested from the exertion of driving in such hot, dusty conditions. Karcher were cleaning cars but one or two of the drivers could have done with a hose down.

continued

Jeff Churchill was changing the axle on the new car having worn out the limited slip differential on the first test, George Hill was smiling. "I have finally got through a stage without going off," he joked. He was climbing the leader board rapidly having finished stage 2 in 38th place. Lying 12th he was on target for a good finish.

The lunch halt gave everyone a chance to relax and prepare for the final two stages, the last being a variation of stage 3, but again 23 miles long. There was a delightful moment within the Andrews service area when some children asked Brookes for his autograph. Having signed he suggested that they asked Mike Broad for his. They did not of course realise that the occupant of Mike's overalls was Matthew Engel but despite his protests they insisted that he signed — a star was born. Although looking more relaxed he was still unsure about how much he could trust Brooke's ability and those who realised this were doing little to boost his confidence!

Because the event was so compact, Martin Little had taken the opportunity to set up his excellent results service in the social club adjacent to the service area. This enabled a leader board to be produced during the lunch halt and there were some shocks when these were distributed.

The majority of the interest had centred around the usual crews who tend to dominate proceedings. Few were prepared for the news that Andy Miers in an 'almost' Group 1 Escort was lying fifth with Louise Aitken sixth, John Weatherley seventh, Kevin Curran eighth and Steve Green ninth, just 2secs ahead of Brookes. When was the last time that there had been one — let alone three — Group 1 cars in the top 10?

Louise got off to a bad start with two spins on the first stage (although she was still eighth fastest) and an off at a hairpin on the third stage. The main problem had been lack of visibility due to the ever present dust storms. The last two stages were to be a revelation to anyone who was privileged to watch her.

Kevin Curran and Steve Green had both been going well, opting for a steady approach and reaping the rewards for their efforts. Andy Miers was amazed with his position. "I thought I had been going well but having broken two halfshafts I never expected this." If the gap between the leading crews was fairly spread out (not that anyone could afford a mistake) then those at the lower end of the top 10 were locked in a tense struggle. Only 4secs separated Weatherley from Brookes. There was everything to play for.

The Classes

When the championship regulations were drafted, the intention was that the two classes for the new Group A would attract more crews as the year progressed. Sadly this has not yet been the case and the Russek saw just two cars entered, the Escort RS2000 of regular competitors Merv White and Paul Watkins being joined by the less powerful Talbot Sunbeam of Mike Russell and Alex Ronney. White finished 38th after setting some respectable time throughout the day while Russell too did well and finished 32nd.

Once again the 1300cc class fell to the Citroen Visa of John Weatherley and Rick Smith who also recorded their best overall result to date, finishing eighth just seconds behind George Hill's Group 4 Vauxhall. Pat and Pete Messer kept going despite their car's hunger for tyres but they now need a major cash boost if they are to stay in the hunt. A puncture on the last stage cost the other Citroen, that of John Waghorn a higher placing, and he finally finished 95mins



Mike Stuart drove a strong rally, the first since his horrific accident, to finish a fine second overall.

For safety reasons the organisers sensibly decided to start cars at 2 min intervals for the last two stages. It was a laudable decision as, during the morning tests some drivers were being put off by what they thought were caution boards along the route. If visibility had been better they would have seen that these were in fact black 'footprints' on white posts marking the scenic routes through the forest, usually followed at a more leisurely pace.

As the crews moved off to start the fifth stage which looped toward Treherbert, Chris Lord's Talbot stayed behind. A puncture on the previous stage had slowed the car, a wheel stud had sheared, the gearbox was leaking oil and the axle was beginning to make unnatural noises — retirement was the only course of action.

The order changed little on the fifth stage except for Brookes moving into seventh and Green overtaking Curran. With the dust now less of a problem there were some electrifying times being set although most were too late to affect the result. After modifying the rear bump stops at lunch to cure a day long handling problem, it was the 'Sunvenger' of Ian Wilson and Paul Mason who set fastest by 2secs from John Brown who was showing his usual flair. Aitken was third fastest

and George Marshall fourth. People could hardly believe their eyes as the established stars were being shown the way home by the stars of the future. Mike Stuart, Ian Tilke, Steve King, Malcolm Patrick and Bill Dobie were some 6 secs down on the leader with George Hill rounding off the top places.

The JC Van Hire supported final stage was another 23 miles which used a common second half with that of the infamous third stage. There had been no official service between the last two stages and so cars were out on their own.

Patrick led Stuart into the stage with an 8secs lead. They emerged in the same order, Patrick having taken a further 2 secs from the black Escort. Dobie had started third, 30 secs behind Stuart but the reigning National Champion's luck deserted him when he needed it most. A puncture needed changing in the stage and so Bill stopped near Terry Kaby and Rob Arthur (amongst other notable spectators) to enlist their help. A brief stop was the plan but when it was discovered that there were in fact two punctures to deal with, Bill's hopes were equally deflated. It took over 6 mins to get going again and with that went a possible third place and 16 points. Dobie finished 19th and scored just one point.

Aitken was again among the top 10

and her drive over the final stage, now with a failing head gasket, saw the Scots lass take fourth overall and the 'Man (!) of the Rally' award, presented to great applause at the finish.

Sadly, Andy Miers saw fifth slip away when he inverted the Escort on the final test and had to settle for 10th, this and Dobie's punctures elevating Steve Green to sixth.

The two rear wheel drive Mk3 Escorts fared reasonably well during the day, Donald Heggie's G3 set some early quick times but then lost 5 mins on the fourth stage when the engine cut out. The fault was later diagnosed as being within the fuse box. The Scotsman dropped from fourth to 31st and finally finished 21st. Jeff Churchill's new car also had a steady run despite wearing out a limited slip differential and requiring a new axle, ending the rally in 13th place.

It had been a truly remarkable rally and extremely well run. The performances of Louise Aitken and Mike Stuart will remain an outstanding feature of the event, which stands every chance of retaining its 1981 title of 'Best in the series'. Dave West expressed the view that many rally organisers seem sadly out of touch but the organisers of the Russek, "Give the impression that they are running events every week."



John Weatherley, 1300 victor again, behind Messer.

The 1300cc to 1600cc class went to the Escort of Anthony Eaton who had a fine run throughout the day, eventually splitting Bill Dobie and Donald Heggie to finish 20th overall. Brian Oswald and Jeffrey Wincott took second and third respectively while pre-event leader Steve Fairlie failed to finish; another casualty of the third stage. Bryan Richmond dragged the Mazda back to Swansea to claim three valuable points toward retaining his second place. The crew were beset with a list of problems throughout the rally, the recounting of which earned them one of Roger Evans's bottles of champagne for the best hard luck story of the event!

PETER RUSSEK MANUALS RALLY
Jul 24

Paice/AUTOSPORT RAC National Rally Championship, round 5

- 1, Malcolm Patrick/Phil Short (Opel Ascona 400), 97m 53s;
- 2, Mike Stuart/Frank Rowlands (Ford Escort RS), 98m 13s;
- 3, John Brown/Dave Nicholson (Ford Escort RS), 99m 14s;
- 4, Louise Aitken/Ellen Morgan (Ford Escort RS2000), 100m 03s;
- 5, Russell Brookes/Matthew Engel (Vauxhall Chevette HSR), 100m 05s;
- 6, Steve Green/Hywel Thomas (Ford Escort RS2000), 101m 01s;
- 7, George Hill/Derek Tucker (Vauxhall Chevette HS), 101m 05s; 8, John Weatherley/Rick Smith (Citroen Visa), 101m 08s; 9, Kevin Curran/Trevor Wheatley (Ford Escort RS2000), 101m 37s; 10, Andy Miers/Steve Bond (Ford Escort RS2000), 101m 45s.

Rally Leaders: SS1, Malcolm Patrick; SS2, Terry Pankhurst; SS3, Mike Stuart; SS4 to SS6, Malcolm Patrick.

Starters/Finishers: 79/45.

Class C1 (Group A up to 1600cc): No award.

Class C2 (Group A over 1600cc): No award.

Class B1 (Group 1): 1, Louise Aitken/Ellen Morgan; 2, Steve Green/Hywel Thomas; 3, Kevin Curran/Trevor Wheatley.

Class D1 (Up to 1300cc): 1, John Weatherley/Rick Smith; 2, Pat Messer/Pete Messer (Talbot Sunbeam), 107m 57s; 3, John Waghorn/Mike Smith (Citroen Visa), 117m 29s.

Class 12 (1300cc to 1600cc): 1, Anthony Eaton/Stewart Anable (Ford Escort), 105m 23s; 2, Jeffery Wincott/Noel Murphy (Ford Escort), 110m 46s; 3, Brian Oswald/Steve Hall (Talbot Sunbeam), 110m 59s.

Class D3 (over 1600cc): 1, Malcolm Patrick/Phil Short; 2, Mike Stuart/Frank Rowlands; 3, George Hill/Derek Tucker.

Leading retirements: Terry Kaby (Vauxhall Chevette HSR) engine, 1 stage; Phil Collins (Ford Escort RS) accident, 2 stages; Ian Cathcart (Ascona 400) accident, 2 stages; Francis Tuthill (Ford Escort RS) accident, 2 stages; Reg Mullenger (Ford Escort RS) accident, 2 stages.



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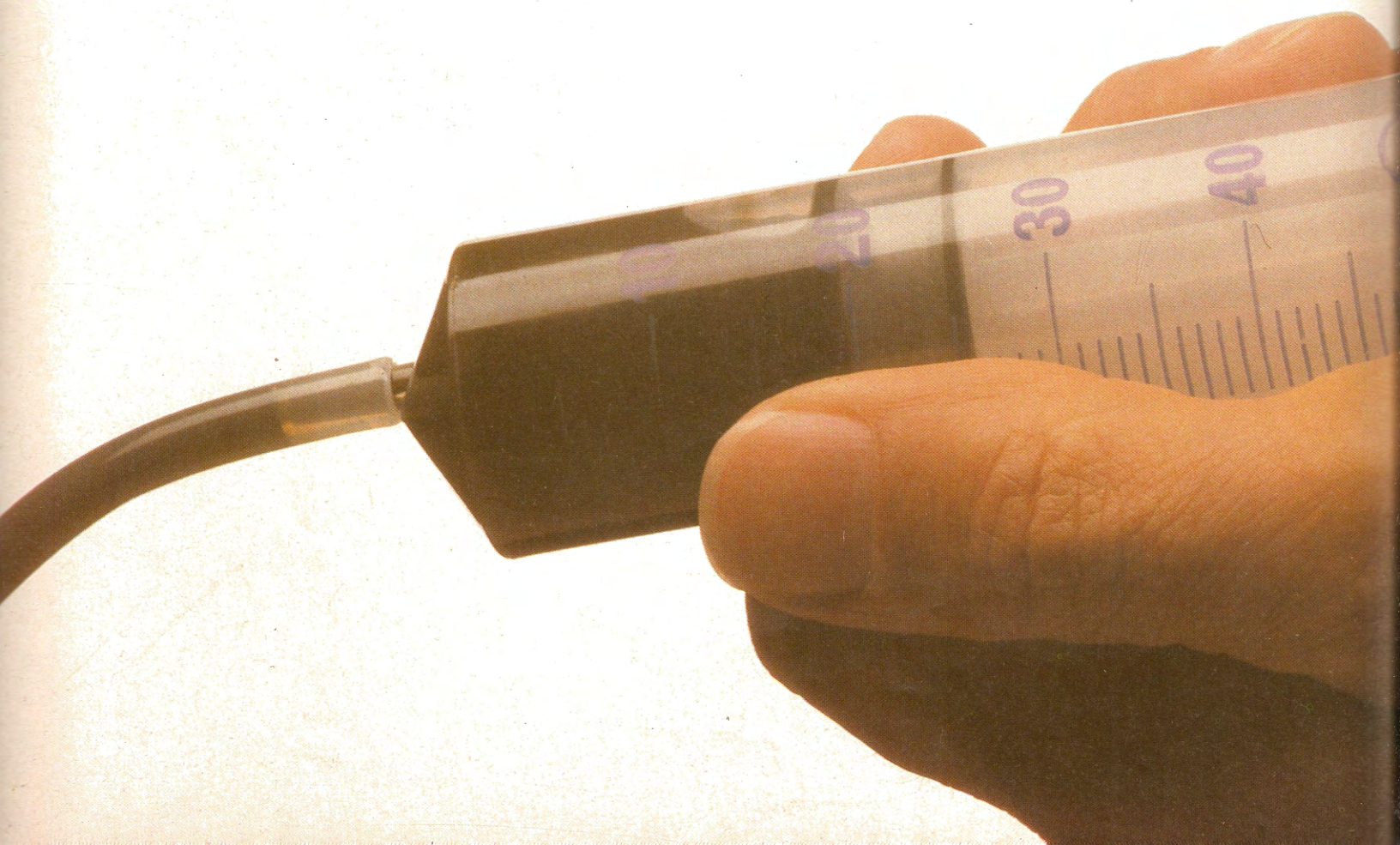
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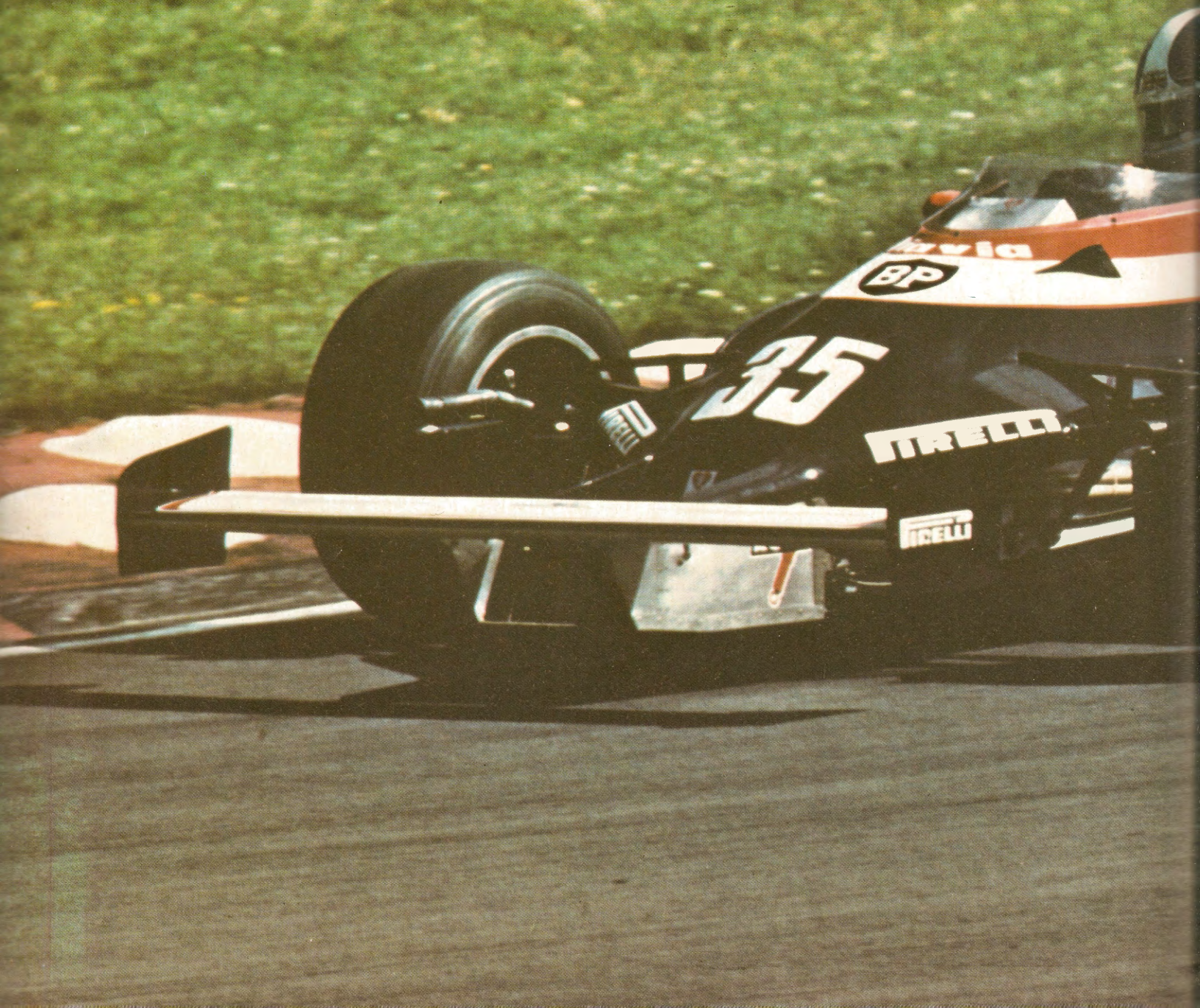
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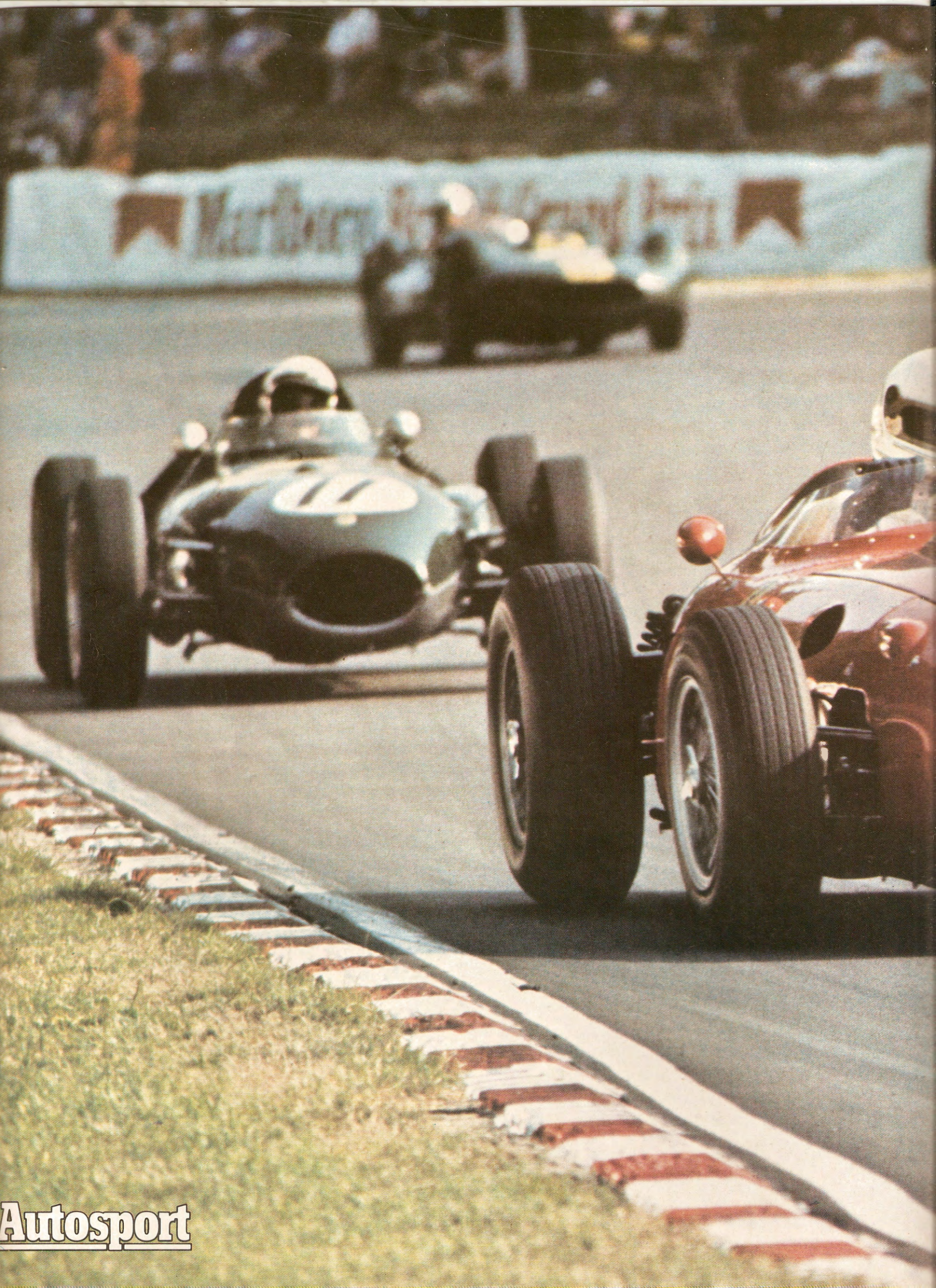
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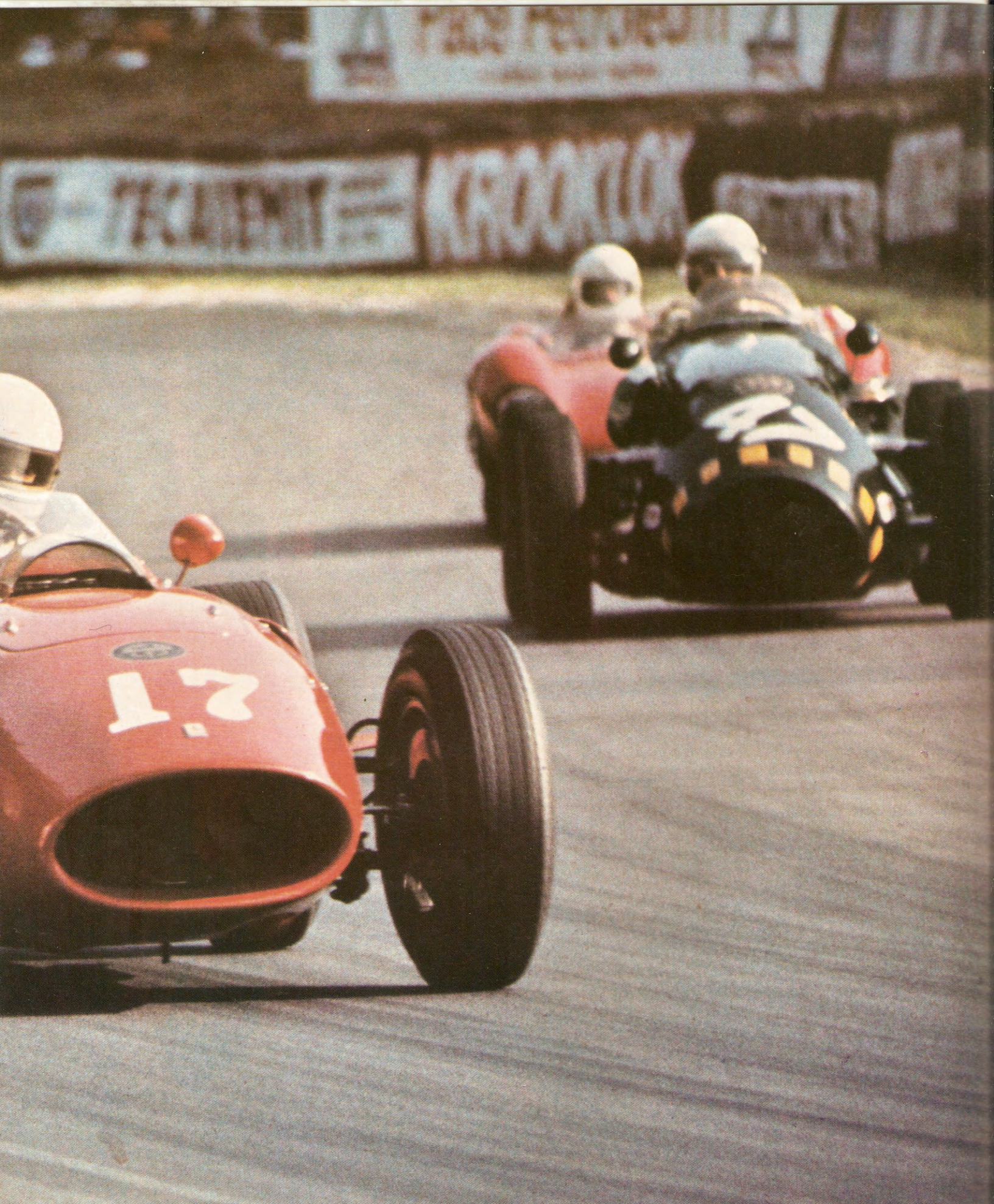
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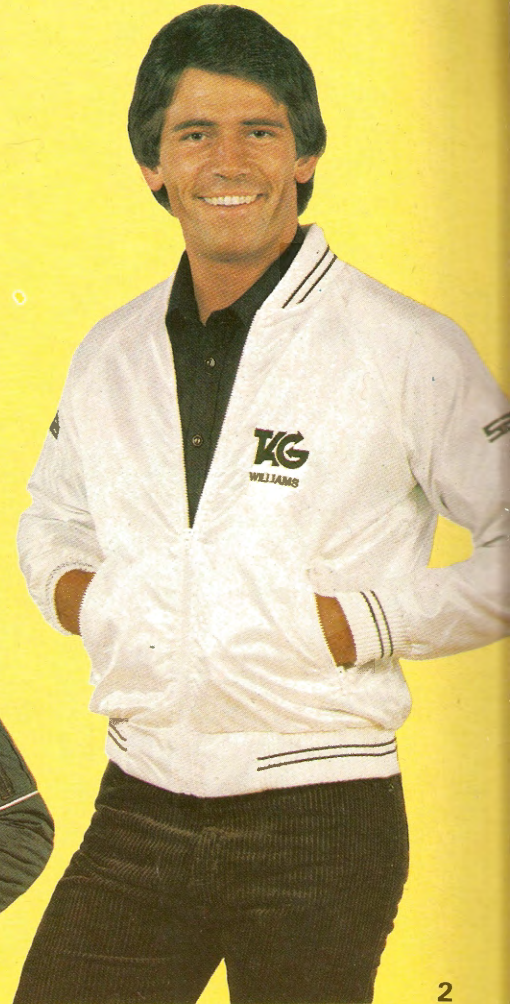
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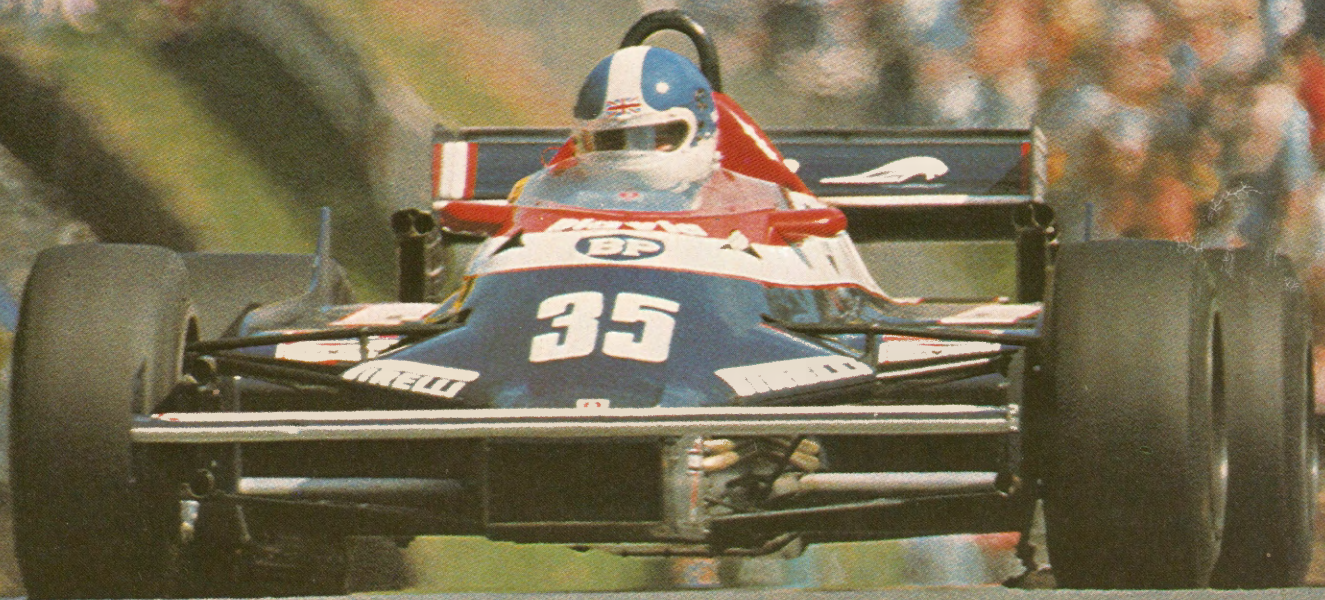
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Warwick delivers

The star of Brands Hatch, DEREK WARWICK, tells JEREMY SHAW how he and the Toleman-Hart turbo shot to prominence.



The performance of Keke Rosberg during qualifying for the Marlboro British Grand Prix meeting at Brands Hatch was electrifying, his speed through Clearways and Paddock Hill Bend providing sheer joy for the spectators; the precision and deftness with which Niki Lauda recorded his second victory of the season for the Marlboro McLaren team was, predictable, perhaps, but certainly impressive. Overshadowing both of these, however, at least insofar as the British contingent were concerned, was the impression created by Derek Warwick.

The 27-year old Hampshire man is now in his second 'season' of Formula 1 racing, although only for the last two or three races has he had a car capable of allowing him the opportunity to display his true mettle as a Grand Prix driver.

The Toleman team, running alone with Brian Hart's four-cylinder turbocharged engine, have steadily developed their car during the 1982 season, following a simply dreadful time last year. Their maiden Grand Prix season was fraught with disaster, the pair of cars qualifying only once apiece and, to make matters worse, they lost their sponsors before the end of the year. Derek Warwick admits that he was one of many who thought that the team would, and should, have parted company with Brian Hart — solely because of the team's difficult financial situation rather than any lack of confidence in the Harlow engineer's capabilities — but they stuck to their guns and, at long last, are perhaps beginning to reap the rewards.

"You've got to hand it to them," said Derek. "They've certainly got balls, particularly Alex Hawkridge, for sticking at it. For sure, it would have been far simpler to join the Cosworth brigade but they knew that the turbo was the way to go in the long run."

Over the winter, great progress was made. "Brian made some changes to the engine," continued Warwick, "and apart from giving us quite a lot more power, it also made the car much easier to drive. By that I mean that the throttle response was improved dramatically."

Another recent revelation has been the advent of a new Pirelli tyre. Narrower in overall width and different, too, in construction, the new rubber has transformed the handling capabilities of Rory Byrne's, by Formula 1 standards, ageing TG181 chassis: "The car is far more predictable in virtually all types of corners, be they quick ones or slow."

In the weeks leading up to the Brands race, the Toleman team had rather a rough time during tests at the Kentish circuit, due to a variety of reasons, but their fortunes took a turn for the better in unofficial testing prior to the Dutch Grand Prix. Then, of course, came Derek's stirring drive during the race at Zandvoort. He had set second fastest time during the morning warm-up session and followed this by quickly moving through the field and into seventh place before the rear wing support broke. With the aerodynamics restored, Derek went on to set fastest lap of the race.

So, did he come to the British Grand Prix with a new-found confidence? "To be honest, I didn't really. After our poor showing in the test days, I was expecting to be some way off the pace. But when I went out for practice, my first lap was a 1 minute 15 seconds, which we'd been unable to better during the tests, then I did a 14, then a 13, and then a 12. I couldn't believe it!"

He finally qualified on the sixth row of the grid, although might have been even higher up had he not been held up by traffic. "I tell you," he continued, "it was almost impossible to get a clear lap in."

Nevertheless, Warwick was spurred on by the fact that his Toleman-Hart had performed superbly on full tanks during the final warm-up session in Holland and was confident of setting a similar pace at Brands.

"The rest of the weekend in a typical F1 race is irrelevant, really. All the DFV guys are under-weight during qualifying and everyone is running the super-soft tyres, so it's just a case of who gets in a clear lap."

"On the Sunday morning, however, we were looking fairly good. We were third and fifth quickest, so we knew that we had a good chance of finishing within the top six come the race. The car felt very good on full

tanks. I never thought I'd be in a position to pass Pironi, obviously, but I did think we might have a good chance of scoring some points."

Things were looking up. The previous race had instilled a good deal of confidence in his driving, something which must have been lacking up until then. After all, the last time he completed a full race distance was in his Formula 2 days, almost two full years ago. He had qualified only once last year, for the final race of the season, in Las Vegas, although mechanical failure let him down on that occasion. He was at the back of the field anyhow. Since then he had started just three races, and in none of them had he come near to finishing. Brands Hatch, then, could be the turning point. Or so he hoped.

"We knew we were going to be quick," he asserted, "and it was just a case of being careful over the first few laps. I would have to work at it from there."

The start-line coming-together between Patrese and Arnoux unfortunately put paid to Derek's Toleman team-mate, Teo Fabi, who had qualified one place further up the grid, but Derek managed to thread his way through and he completed the first lap in 11th place. Patrick Tambay, Alain Prost and Bruno Giacomelli were summarily dispensed with and the visit to the pits of Michele Alboreto's Tyrrell allowed the Toleman up into seventh position on lap 5. Things were looking good. "The overtaking was quite easy, really, although I must admit that I was surprised how easily I got past the Renault. I know they were in deep trouble at Brands and I expected to be able to pass the DFV and Alfa cars fairly easily but I expected a harder time from Prost. Instead, it was relatively easy, mainly because I was very quick through Clearways and I did most of my overtaking into Paddock."

"I could see the crowd waving me on, it was a fabulous experience."

Andrea de Cesaris was the next to be relegated by the flying Toleman and this brought Derek onto the tail of de Angelis's Lotus. By now, the crowd were fully aware of Warwick's progress up the lap chart and each improvement in his position was greeted by vigorous waving of Union Jacks, beany hats and programmes. This did not go unnoticed. "I could see the crowd waving me on," said Derek, "and it was a fabulous experience."

Already it was evident that the Toleman was one of the quickest cars on the track, but the way in which he passed Elio de Angelis, into Westfield, surprised virtually everybody. "Yeah, me too," he agreed. "I think Elio must have made a mistake of some sort because there was no way I should have been able to pass him there. To be honest, I think he may have missed fifth gear. Anyhow, the opportunity just arose, so I took it!" The Toleman was now fourth. And next in his sights was the Williams of Derek Daly.

"It took me a couple of laps to work out where to pass him, because he was still quite quick through the corners." Warwick made up his mind that Paddock was the place and he duly slipped neatly through as they started lap 19. Now he was third. Only Niki Lauda and Didier Pironi were ahead of the all-British car and Derek immediately began to home in on the red, Italian machine.

"As far as passing Pironi was concerned, I had a problem because he was as quick as me, or even a bit quicker, up the straights. I'd very much have liked to have passed him on sheer power, that would have been great, so I worked out for a couple of laps at taking a run up at him through Surtees and being right under his gearbox as we went onto the main straight. But I never quite had that extra 'oomph' to get past him."

"I sussed from that the only real overtaking places would be going into Paddock or going into Druids. He was braking very early for those corners and he was also very slow through Dingle Dell, Stirlings and Clearways, so I knew that if I could get a good run at him, I'd be able to get him under braking for Paddock. And that's what happened."

Prior to that joyous moment, though, Warwick had a

slight moment at the same corner a few laps before he actually brought off the manoeuvre. What happened then? "Oh yes," he recalled with a wry smile. "Actually, I wasn't trying to pass him then, I was really going to have a go at him into Druids. I was trying to make him keep way down low into the corner while I went up high and then cut in and, hopefully, get him under braking for Druids. But I didn't quite press fourth gear in hard enough and it jumped out. Just momentarily, the car got very skittish and I was lucky to get away with it."

Warwick took a couple of corners to get back into his stride, a close-following Daly making sure that he kept on his toes, but his determination soon saw him regaining lost ground and he was closer than ever to the Ferrari as they swept out of Clearways on lap 26. "I was so close that I could feel the exhaust fumes in my helmet. I was looking straight up both exhaust pipes and I could see the turbo glowing, absolutely white hot! It was an incredible sight. I wish I'd had a camera with me because I could have taken a lovely photo!"

More important matters were pressing, however, like moving up into second place. But once he had got into position, tucked close in behind the Ferrari, the execution of the passing manoeuvre was fairly straight-forward.

"I must admit that I gave a little cheer to myself when I went past. It was a great moment for the whole team. I suppose there's bit of a love-hate relationship between us and the Ferrari team in that we both have turbos. We just want to do well against the other turbo teams, especially as they've got the big budgets and you probably wouldn't believe the money we run this team on . . ."

So, second place it was. But, unbeknown to us all, Derek was under the impression that there could even have been more to come: "I knew I wasn't making up any ground to the leader but that's another interesting point because I thought it was Piquet who still held the lead. I reasoned that he must still have his pitstop to come and I thought, 'hey, I could be in the lead of the British Grand Prix soon!'"

Warwick pushed on fairly hard for the next few laps, still with that thought in mind. "The car was running fantastically. The tyres looked good. Actually, although I couldn't see it in my mirrors, the tyres were getting quite hot on the outside edge. They were blistering a bit, but I couldn't see them because of a bad vibration in the mirrors. I thought one of them may have turned on the rim a bit but it was obviously that left rear tyre starting to blister. But still the car felt good and I'm sure I could have got it to the end OK." Sadly, he never had the chance. A driveshaft let go as he tried to accelerate out of Druids for the 41st time and that was it. His brief taste of glory was over. The car was still driveable, of course, but not at racing speed and he could only cruise slowly round to the consolation of his team, saving himself the walk home.

Everybody at Brands Hatch was impressed by the showing of Warwick and the Toleman-Hart. But there were still some who doubted whether it was all for real. Did the car start with soft tyres? Did the car start with a full tank of fuel? Did the team know that the car would break down before the end? Derek is quick to voice his distaste at such insinuations: "It's just sour grapes. When a team's struggling and then suddenly rises to fine form, there's always someone wanting to knock them straight back down again. That's terrible. I can assure you that we went out there determined to try and finish the race. It was going really well until that driveshaft went and I know that, without the breakage, we could have finished the race. OK, one tyre was blistering a bit but it wasn't costing me any time whatsoever. After all, I set my fastest lap only two laps before the end. Unless it exploded I think I could have got to the finish."

Warwick, then, would have to wait for his first GP finish. Only a week, in fact, because he was able to combat severe handling difficulties at the Paul Ricard circuit and bring the car home in a creditable 15th position. It was nice to go the distance, even if in not such glorious circumstances as seven short days before. Nevertheless, with the promise of a new car to come and further development of the Hart turbo engine, Warwick's future has a far rosier outlook than it did not so long ago. For such a hard-working and dedicated team, victory would be sweet indeed. ■



Track Test

Storming Scirocco

One of the cars likely to feature strongly in next year's Group A battles is the Volkswagen Scirocco, campaigned in this year's Tricentrol Group 1 championship by Tony Lanfranchi. TIFF NEEDELL took a trip to Donington to find out what it is like under a current tin-top.

It's the Tuesday before round 7 of the Tricentrol RAC British Saloon Car Championship, to be held at Donington, and Tony Lanfranchi is pounding round the circuit looking for modifications that will draw him that little bit closer to championship leader Win Percy's all conquering Toyota Corolla. As ever Tony is enjoying his driving and, despite the close proximity of the race, he is only too pleased to let AUTOSPORT readers have a few laps behind the wheel of his Volkswagen Scirocco GTi.

During 1980 and 1981 Tony notched up a couple of second places in the production saloon car championships with a Volkswagen Scirocco GLi and backed-up these excellent results with 49 wins (!) so after VAG (United Kingdom) Limited had introduced their restyled range of Volkswagens, it seemed a logical progression to have a crack at the Tricentrol Championship with the newly homologated Scirocco GTi. Tony's car has been prepared by Richard Asquith, who has previously worked for Ford at Boreham and was involved with the Datapost Fiesta, while the engine is prepared by Mr Datapost himself, Richard Longman. The engine is the same 1588cc four cylinder unit that has seen so much success in the Golf bodyshell and the main alterations to your Mum's shopping car are a different homologated cam, racing exhaust system, a baffled sump and a switch from the Bosch K-jetronic fuel injection (designed to do all your worrying about fuel consumption for you) to a straightforward Lucas racing system (we're not worried about economy in this formula).

When I arrived at the circuit Tony was already out on the track and he came straight in to the pits—once I had made the appropriate gesture of welcome from the 'Donington Dug-outs' provided for the signallers. No sooner than he had got out of the car he was ordering me to get my gear on and have a go (memories of 'nervous Needell' about to take the world by storm, as he climbed into a Motor Racing Stables Formula Ford, with the terror of chief instructor Lanfranchi behind). Tony's Scirocco is simply turned out in white, bearing allegiance to his major backer VAG (United Kingdom) Limited, who are fast becoming one of the most

switched-on supporters of British motorsport, being involved with the Quattros and Martin Brundle's Formula 3 among other things, Shell for the fuel and oils and NGK for the sparks. The inside of the car is stripped to the bare shell and painted black with only the one Corbeau seat for the driver.

To get in the 'comfy Corbeau' it is necessary to clamber over the horizontal side member of the crash cage but once in, it is nice to know there is something to stop your competitors following in behind you—car and all! The seat was rigidly fixed to the floor so it was not possible to alter but fortunately 'Lankyfranchi' is of about the same proportions as myself. The instrumentation is very familiar to a single seater, with large rev counter straight ahead, flanked by the temperature and pressure gauges for water and oil. In the centre of the dash there is an ignition switch and a two position fuel pump switch turning on the low pressure pump that feeds the engine collector and then the high pressure electric pump that runs the fuel injection. A short press on the black starter button mounted alongside these switches and the engine burst into life. "Keep it below 8000rpm and enjoy yourself"—he never used to say that at the racing school!

Pleasant surprise

Straight out onto the track and the first delight is that it really sounds nice—hardly the most important aspect of a racing car but nevertheless a bonus—I felt I was using 8000rpm almost at once, such was the note of the engine, but a quick glance at the rev counter showed only 6000rpm. In actual fact the engine has a usable rev band of 3000rpm stretching from 5000 to 8000—a very handy flexibility for a racing engine. Now, as readers of my Lancia Rally piece will know, I wasn't over-excited about this test as the Scirocco is, of course, front wheel drive and this was to be my first taste of such a machine in racing trim, and what a pleasant surprise it was.

Tyres are free in the Tricentrol series, although limited to homologated rim sizes, and Tony runs on Dunlop slicks for the dry with Michelin wets and intermediates for the inclement days. These racing tyres do give the car heavy steering at low speeds and it is this variable weight of steering that is the most noticeable

Going deep into the corners and getting the power down as quickly as possible without inducing too much understeer was a bit of scrabble, but great fun.



feature of the car — being very light and tip-toe down the sweeps to the Old Hairpin and rather heavy and dead through the tight confines of the Chicane. The handling itself is surprisingly neutral and the sweeps of Donington were approached very much in the same manner as driving a modern, ground-effect Formula 2 car. Sadly none of your crowd pleasing sideways antics but a maximum concentration on pushing the car into the corner as quickly as possible, without letting the front end slip away and thus miss your apex, and then getting hard on the power as early as possible. Once on the power the Scirocco was fair glued to the road with just the mildest trace of understeer, so the secret to quick lappery was just how fast you could push it into the corner. If you pushed too hard then the dreaded inherent understeer took over and much time was lost as the car missed the apex and scabbled for adhesion in the dusty marbles, off-line. That, at least, is how it felt on the medium speed corners, down Craner Curves was another matter. I did just get it flat-out on my last lap but the lightness of the steering made for plenty of excitement and much sorting out before the Old Hairpin braking area loomed up — I imagine Tony really works for his beer round the back at Thruxton.

My only real reminder that I was in a front-wheel-drive car came after one of the Formula Ford boys had laid a nice line of oil through Coppice Corner (the one onto the main straight) and, as I powered out of the corner and crossed the line of oil, the front of the car darted sideways across the road. Otherwise, the gearchange was positive and light, the only problem being that a clumsy change from second to third can see you up the dog-leg to fifth — not the neatest trick to play as the rest of the field charge off the grid behind you. The engine really dies if you let it go below 5000rpm and will splutter along embarrassingly until that figure is reached or a lower gear is grabbed. As your track tester is very much *au fait* with all the new handling fashions, I did have to report to Tony that the Scirocco was porpoising down the Craner Curves. Tony was obviously most impressed with my observations as he promptly showed me his secret tweak . . . venturis! The other competitors still believe they are front brake ducts and Tony's not telling them otherwise! However he did take the time to point out to me that my porpoising was in fact the inside rear wheel leaving the track and then returning and then leaving etc — so I've named this handling characteristic as 'bunny hopping' and I now look forward to this terminology making the next motor racing directory!

The brakes had a pretty horrible feel to them with a very spongy pedal that had plenty of travel but they really worked extremely well with no signs of locking but a very slight trace of fade under long braking. A basic problem here is that the shell is set-up as a left hand drive layout, so the British right hand drive models have to have a long system of linkage, from the brake pedal on the right over to the master cylinders away to the left. It's not too clever at the moment but it's on Richard's job list to design a more positive linkage.

To actually make the Scirocco quicker Tony has a wide variety of tweaks to play with. First he has a selection of gearboxes with a variety of ratios and a choice of two differentials. I tested the car with a five speed box fitted but we never got into fifth so Tony was reckoning to swop to a four speed box for the race — avoiding the possible pit-fall of finding that unwanted fifth. When it comes to the handling, Tony can play with dampers, springs and anti-roll bars as well as the basic static geometry of the suspension, but all changes must be in either the rule book or the dreaded homologation papers — pages and pages of statistics, facts and figures describing every feature of the car and alternative parts that have been made in sufficient numbers to be classified as being 'homologated'. At the moment Tony's development has seen him fast overhaul the Volkswagen Golfs and he now has his sights set on Mr Percy, although he really has his sights set more on 1983 when Group A replaces the current Group 1½ and Win's Toyota Corolla will no longer be eligible.

A lap of Donington in the Scirocco saw us taking fourth gear half way past the pits before braking hard and deep into Redgate and changing down to second. A late apex and this was the best corner for the car pulling out cleanly at 7800rpm, into third, fourth and plunging downhill through the Craner Curves trying to use as little of the road as possible through the last, just flat, sweep before a stab of the brakes, third gear and the Old

Hairpin — a real time loser if you try to push it too quick and have to knock off all your speed just before the long uphill drag to McLeans Corner. Another late, deep turn-in third gear corner with the understeer much more pronounced here, as the track crests a slight rise just at the turning in area, hard on the power and out over the gentle curbs on the exit.

Once round Donington

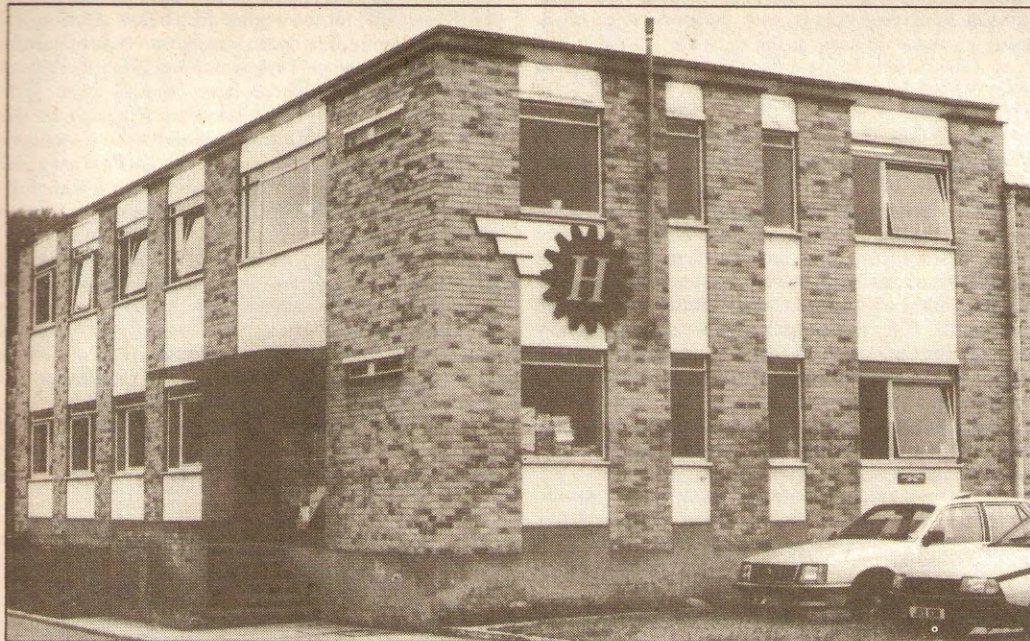
A very brief spell back in fourth gear before the braking and blind turn-in over the brow at Coppice Corner. Tony insists this is third gear but with the oil out I wasn't about to be clever in someone else's car five days before their next race so I went down to second (chicken!). Up to 8000rpm in fourth before heavy braking for the Park Chicane, and needing to feather the throttle slightly on the straight to avoid exceeding those 8000rpm (another reason for the gearbox change). We could of course have changed up but for the mere 50 metres we're talking about it is quicker just to ease back on the throttle.

Lanfranchi shows how it should be done and (inset) gives AUTOSPORT's track tester a few tips.



The chicane is pretty straightforward with the steering suddenly feeling very heavy again after a nice lightweight lap but I had to be very careful not to turn-in too slowly and let the engine drop below the dreaded 5000rpm. I only did a dozen laps and got down to a 1min 27.9s at a time when Tony was doing 26.5's so I was at least driving somewhere near its true pace. The Donington records is 1m 24.8s to Chris Hodgetts' Toyota and, after a variety of alterations and much discussion, Tony, with a new set of rubber, finally got down to a 24.7 so he was looking forward to the coming weekend — now you can all go and look-up what he managed to do when it mattered!

Tony derives enormous pleasure from his motor racing but realizes he can't take out more than he puts in and consequently works very hard, beneath his joviality, to bring the best results for his backers both on and off the track. I expect to see the white Scirocco very close to Win Percy by the end of the year and a real contender for Group A honours next year. My thanks to Tony, Richard and VAG (United Kingdom) Limited for a most interesting day and the proof that front-wheel-drive can be fun after all!



The Hewland factory at Maidenhead. A very modest exterior for such a vital cog in the motor racing world.

Top gear

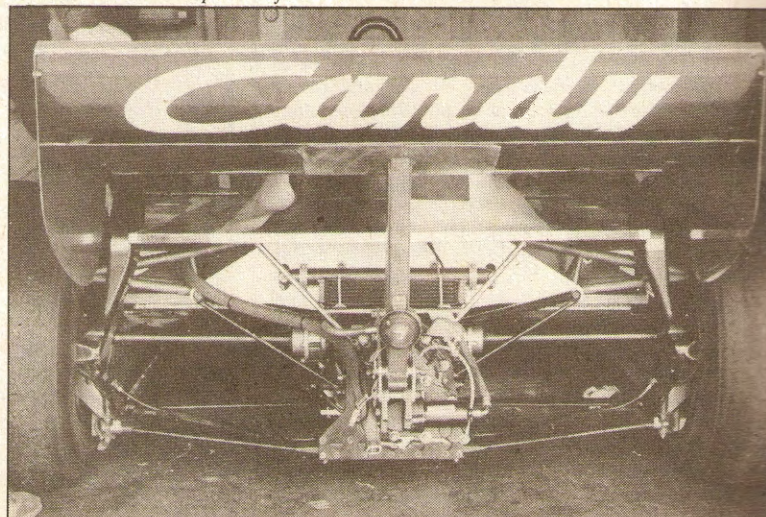
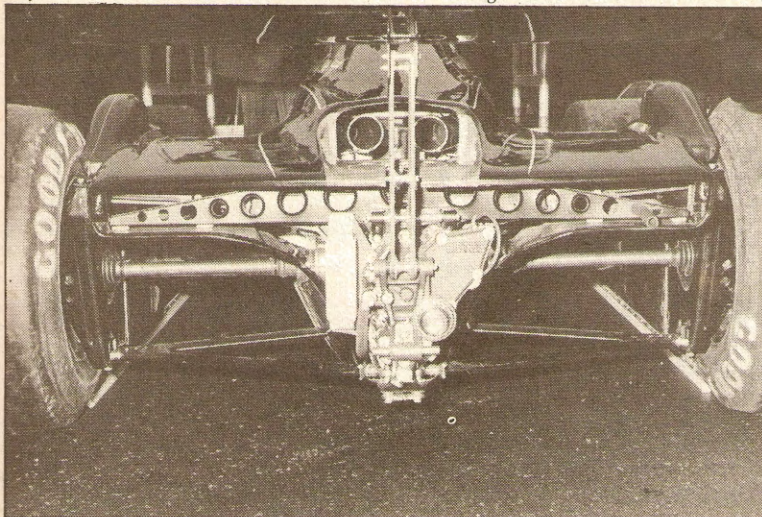
Hewland have been producing gearboxes since 1958. KEVIN BLICK went along to their Maidenhead base to find out how things are progressing.

The glamour in motor racing runs barely skin deep. Scratch away the thin veneer of junketing PR men and private helicopters, and beneath is revealed an army of very different people: the hard grafting professionals who actually keep the show on the road.

None could be more typical than Hewland Engineering. Their name isn't one seen on any glossy hospitality unit and their unprepossessing Maidenhead factory is thankfully empty of sharp suited 'executives' with Gucci briefcases. Yet, to use an appropriate metaphor, they are a vital cog — possibly the *most* vital cog — in worldwide motor sport.

Hewland, as everyone must know, build racing car transmissions for every formula from USAC to Formula Ford, Group C to Formula 1. The sheer universality of their products means that they tend to be taken for granted, as just one more item of specification conspicuous only when something goes wrong.

Left: Lotus use the FGA400 'box with their own casing while the Toleman team utilise the FGB to transmit the power of the Hart Turbo.



motor industry, from companies relying on Hewland's experience to sort out their intractable problems with gearbox development.

As Mike Hewland himself says, his is a company which could never happen again. He was of that post-war generation of engineers, along with Keith Duckworth, Colin Chapman and the rest, who were at the forefront of rapidly-changing racing car design.

Mike Hewland's own engineering career began just before the last war as an apprentice and in the immediate post-war years he worked at EMI and Sperrys, on the factory floor and in the drawing offices. In 1957 he decided to start out on his own and went into metal plating and then metal spraying, with a staff of one in a small factory in King Street, Maidenhead. Soon the firm moved into general engineering work and in 1958 came his first practical contact with motor sport. UDT were sponsoring a team of F2 Coopers and had been suffering repeated gearbox troubles, so Bob Gibson-Jarvie of UDT contacted Hewland, who, he had been told, had experience with transmission gears. Mike was commissioned to build a small batch of special gearboxes for the team.

Six were built and used with some success — enough at least for Eric Broadley of Lola to contact Hewland and ask him to build a special transmission for the 1959 season's rear-engined Formula Junior Lola. This was the real beginning, for FJ regulations demanded a production gearbox casing and Hewland opted for the die-cast aluminium Volkswagen 'box. It became the Hewland Mk I and, of course, the company still produce a VW-cased gearbox used in Formula Ford, F3, FF2000 and Super Vee. Since 1972 it has been the Mk9 'box.

The VW based gearbox went through its extensive development in the early sixties, when it clicked through Mk1 to 5 in rapid evolution of the original theme. The four-speed Mk6 'box was the first to be produced in big numbers when it was used for the fledgling Formula Ford. Some 2000 were sold all told, followed by 2500 Mk8s and 41 Mk9s (all carefully logged in the meticulous sales records of Jim Buss at Hewland). The missing Mk7, incidentally, was a low volume six-speed unit for the 1000cc F2 back in 1966.

Hewland build about 400 a year of the Mk9, which is naturally their biggest selling 'bread and butter' gearbox. Jim Buss calls it the 'grown up' version of the 'box — noticeably now it features die-cast side and end plates.

Eventually there will be a Mk10 and that will mean the end of the VW link, for the Beetle transmission is now no longer produced in sufficient numbers. Five years ago Hewland were guaranteed 10 years' supply, so its end is gradually approaching. The mid-sixties was the time of real growth for Hewland: as well as the steadily expanding VW-based 'box production, there was increasing interest from the F1 teams (remember, this was in the days of turmoil when the current 3-litre formula was about to be introduced).

Hewland's second gearbox came in 1963, after Jack Brabham demonstrated that the little Mk4 box couldn't handle 190bhp of 1½-litre V8 F1 power. Hewland drew

Mike Hewland, still very much the active boss of the company he created 24 years ago, enjoys describing his company in such ironic, self deprecating terms. "No-one wants a business like this. It's too difficult, there's no glamour to it and you won't make a fortune at it." He was telling that to Doug Nye, who profiled the company for AUTOSPORT back in the 'sixties, and he says the same thing now.

But he is also undeniably proud of a company which he created single-handed and which now is utterly dominant in its specialist field. "No-one could take over from us now," he says. "It would take a massive investment by a very large company to catch up with all the knowledge and experience we've gained over the years."

It's that experience, abetted by deep-rooted professionalism, which has set Hewland at the top of its unchallenged peak. It translates into a staff of 108, around £2 million worth of specialised machinery, a heat treatment plant used by virtually everyone in motor racing, computer aided design facilities and, as well as the steady stream of racing gearboxes, less publicly known business from other parts of the

up the HD gearbox (HD = heavy duty). (The company's gearbox designations are something of a motor racing in-joke.) This was a beefier five speeder using his own casing and it saw service in a wide range of machinery from Brabham's F1 cars through to hillclimbing V8s.

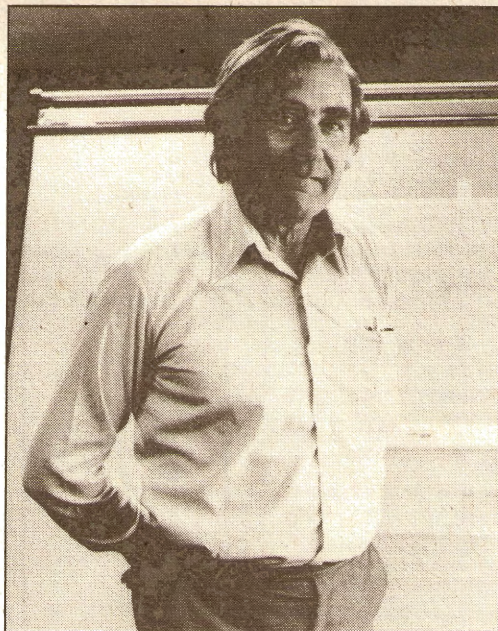
In 1965, the LG transmission appeared (LG = large gearbox) designed to cope with the big capacity American V8s. The prototype went into the first Lola T10. There had been some debate in the company about whether such a 'box was a sound commercial venture, and when it finally went ahead Hewland reckoned on needing to sell 30 to cover the outlay on patterns and tooling. He needn't have worried; production of the gearbox only stops this year and 900 have been made! It's now effectively superseded by the VG transmission introduced last year with Group C in mind and a 1000 horsepower capability. The LG appeared as the four-speed LG500 and five-speed LG600 as well as a special two-speed Indy 'box (driving Graham Hill's 1966 winning Lola T90, for instance).

The company had by 1966 moved to their present factory in the Boy'n Valley trading estate, Maidenhead, and with F1 now established at 3-litres another gearbox was called for. A Different Gearbox, in fact, or DG. Much of the demand for the transmission had come, once again, from Brabham, who wanted a 'box suitable for both F1 and Group 7 sports cars. But with the non-appearance of his Repco sports racer, the DG was slow to take off. A big box, derived from the LG, it never made a great impression in F1 but still remains in production at Hewland, having been used in F5000 and more recently various sports cars. An improved DGB version goes on sale this October, with detailed improvements including a revised, stiffer casing and capable of taking up to 750 bhp. All told 582 have been built to date.

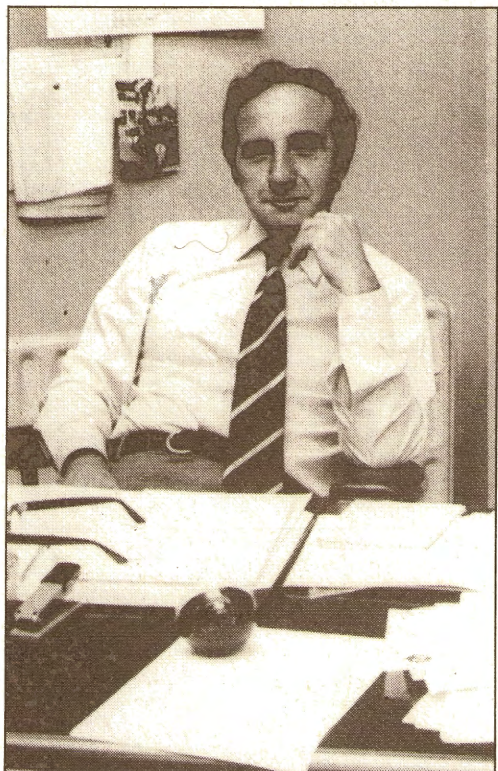
The following year, 1967, saw another of Hewland's great successes: the FT200, developed for the then new 1600cc F2 formula but with reserves in hand for medium capacity sports car use as well. Again, this has become a mainstay gearbox in motor racing, with use in F2, F Atlantic and sports cars. Jim Buss has 1558 sales recorded and, of course, it's still in production. Like the rest it has evolved with time, the improvements being particularly necessary to the casing which, used as a stressed member, has had to handle a dramatically increased load as tyre widths have increased and aerodynamics improved. The magnesium case has improved in quality, with more strengthening ribbing and more mounting points to accommodate these changing needs.

The F1 gearbox breakthrough came in 1968 when Hewland married the big DG crownwheel and pinion with FT gears, then put them into a new casing with an FT tail-end. The result was the FG400, and with its successors, the FGA400 (1973) and FGB (1980), it has been with us ever since.

Those are the bare bones of the Hewland story and perhaps it doesn't sound too exciting. Three formula transmissions and a couple of sports car 'boxes, all developed in the sixties and all still trekking steadily along in the eighties.



Mike Hewland and Jim Buss. Hewland is still very much the boss of the company he began 24 years ago assisted by his long time partner Jim Buss.



But that would be severely to mis-judge Hewland. True, one side of their story is the production of gearboxes but that in itself is a constantly demanding process. The other side is development: not, perhaps, the quantum leaps forward of ground effects or turbocharging, but a steady step-by-step forwards movement, a chiselling away and constant refinement.

Nowhere is that more apparent than in F1. Hewland regarded the FG transmission's capabilities as marginal back in 1968 when it was handling 430bhp and the infant aerofoils of the day were taking away the safety valve of wheelspin. Now the transmission is handling something around 550bhp in the current generation of Renault and Brabham-BMW turbos, with infinitely more traction to cope with as well.

There's an understandable air of cynicism about present day F1 at Hewland. "We badly need to develop a new F1 gearbox," says Mike Hewland, "but we don't know where the regulations are going so we can't make a move. We're always the last to know as well. We'll be developing a gearbox, and a change in regulations or tyre sizes can virtually junk it overnight." With the cost of developing a new F1 'box anything up to £250,000, Hewland naturally aren't going to move until the way is clear. "The teams are conservative naturally. They want to keep what they know and not risk developing something new," adds Hewland.

Some 30 per cent of Hewland's business is generated by F1. All the teams, except Ferrari and Alfa Romeo, use the FGB gearbox, though most of the bigger ones now have their own magnesium casings cast to suit their individual design requirements. Virtually all are five-speed now, the six-speed craze having faded. With so much cash involved, Hewland's frustration at the current state of F1 is quite justifiable, particularly as the gearbox so often takes the blame for failures that have other, deeper causes.

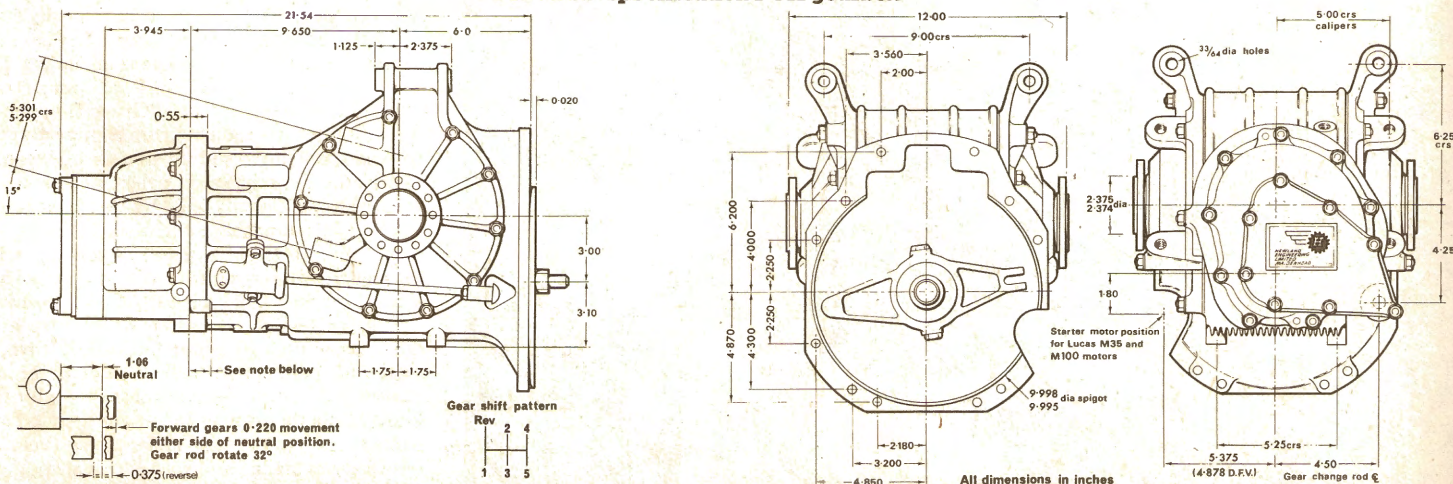
The present F1 gearbox has a very short life. In the Brabham-BMW turbo, which seems to be toughest on gears (worse, for some reason, than the Renaults) the gears, dog rings and bearings will be unserviceable after one race; and that's if the gears haven't stripped under the strain before that.

Hewland, incidentally, don't get involved in servicing F1 or any other of their gearboxes, instead concentrating on design and manufacture.

Mike Hewland will willingly talk about possible alternative F1 gearboxes, although he is not at all convinced by the theoretical advantages of the transverse gearbox, currently the vogue in Indy Car design. "Penske use our 'box and they're not doing so badly," he points out. He's also pleased to note that the latest Ferrari transmission is not transverse like its predecessor was. It does, though, sit the final drive gears behind the gearbox instead of forward of it. "We offered that a few years ago but no-one was interested," laughed Hewland, "I think it's still lying around."

He thinks the transverse 'box will suffer from torsional stress problems as the shafts lie across the car and must be affected by any slight case flexing. That means the case must be made strong and heavy. The

Technical Specification FGA gearbox



Top gear

continued

ratios are also harder to change.

"We're very aware of the need to design 'boxes that can be easily serviced. We know the conditions that mechanics work under and there is no point in expecting them to be perfect, for they often aren't."

Mike Hewland and Jim Buss look back fondly to what they call the "Formula 1 van drivers". Those were the days when Jack Brabham, Denny Hulme and the like used to turn up at Maidenhead in the team van to collect bits, when the deals and the problems were thrashed out man to man.

But if F1 has changed, so too has Hewland. For the past seven years the company has had two factories, 100 yards apart, on the Boyn Valley estate. The original factory now does the heavy turning, gear cutting and heat treatment while the number two factory houses case machining, grinding and assembly.

As much as possible of the work on transmissions is done 'in-house'. The bare castings are supplied by Stone Magnesium, while the rough steel forgings in type 36 steel or aircraft quality S82 steel for F1 come from Doncasters of Sheffield or Wittingham and Porter of Hull.

The company works to the aircraft industry system of identifiable components. Any part of any transmission can be traced back by meticulous records to its source,

HEWLAND HISTORY

Year	Type	Gears	Class
1958	"Special"	5	F2

Based on VW Case

1959/60	Mk1	5	FJ
1961	Mk2	5	FJ
1962	Mk3	5	FJ
1963	Mk4	5	Sportscars
1964	Mk5	5	Sportscars
1964	Mk6	4	F3
1966	Mk7	6	F2
1968	Mk6/FF	4	FF
1969	Mk8	4/5	F3/FF
1972	Mk9	4/5	F3/FF/FSV

All Hewland Made

1963	HD	4/5	F1/Tasman Sportscars
1965	LG500	4	G7 Sportscars
1965	LG600	5	G7 Sportscars
1966	LG2	2	Indianapolis
1966	DG300	5	F1/Sportscars F5000
1967	FT200	5	Sportscars
1968	FG400	5	F1/F2
1968	AW1000	4	Indy
1972	LG600/Mk2	5	CanAm
1973	FGA400	5	F1
1973	LR200	5	CanAm
1973	TL200	5	F1/Sportscars
1980	FGB	5	F1
1981	VG	5	Sportscars
1982	DGB	5	Sportscars

so any fault can be tracked back.

Two very new computer-controlled turning machines cut the rough forgings to shape. They use a solid state memory with tape control which means that they can be set up to repeat work constantly with an accuracy and consistency a human operator couldn't match.

Computer aided design is vital now to Hewland. Their main design computer is linked to a printer and a plotter which will plot out the shapes that are being programmed into it. If the plot is correct, the programme is transferred to the tape and on to the machines. With a solid state memory system, the machines just need the tape run through once to 'remember' it. Any amendments and the revised tape is run through again and the machine adjusts.

Mike Hewland is particularly proud of his Gleason bevel gear cutting installation of six massive machines that cut the final drive gears and test them. "You won't see the like of this again in a small installation," he explains. At a current value of around £50,000 it's not hard to see why. Cutting bevel gears is still very dependent on the skill of the operator and his equipment: "A bit of black art," says Hewland.

Culminating the number one factory work is the heat treatment plant; a hot, dingy unexciting looking corner of the works. "Stand here long enough and you'll see bits from every racing car firm in the world," says Hewland. "If something goes wrong here everything else is for nothing."

The plant comprises two large underfloor endothermic furnaces. They're powered by natural gas which is 'cracked', or broken down, into its constituent gases and then fed into the furnaces in a very carefully controlled mixture. Again, a constant record is kept of furnace conditions against contents to identify problems and guard against come-backs.

In crude terms, the heat treatment process forces carbon (from the carbon monoxide of the cracked gas) into the surface of the steel. The nitrogen is a steady atmosphere inside the furnace and hydrogen from the gas is burned off.

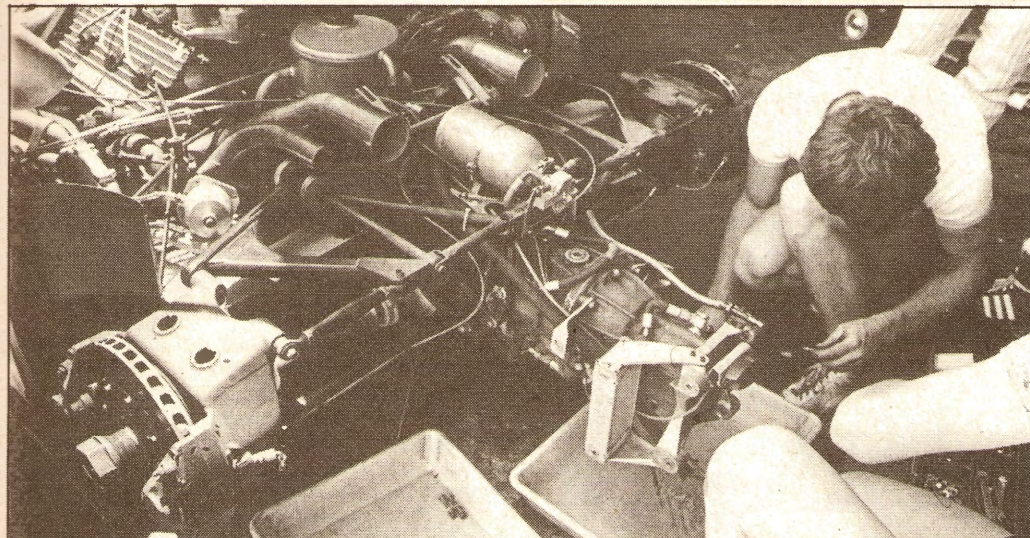
In the number two factory are the final stages of production; cutting gears on turned blanks, drilling shafts, lapping crownwheel and pinion sets, machining cases. There's another new computer-controlled machine installed for this last process, carrying its range of drills and cutters on a massive turn-table and selecting the appropriate one as the programme dictates. Gearbox assembly goes on here, too, with all the fitters being capable of building up any of the Hewland transmissions.

Hewland remain very much a motor sport orientated company. There is no desire to diversify into other areas. Business is, apparently, hectic enough without any thoughts of that nature. They have made revised internals for production car gearboxes (including some, no doubt, they'd rather remain discreet about) but Hewland aren't greatly interested in road car gearboxes, although they have been helping out Borg Warner with some technical development on their CVT automatic transmission.

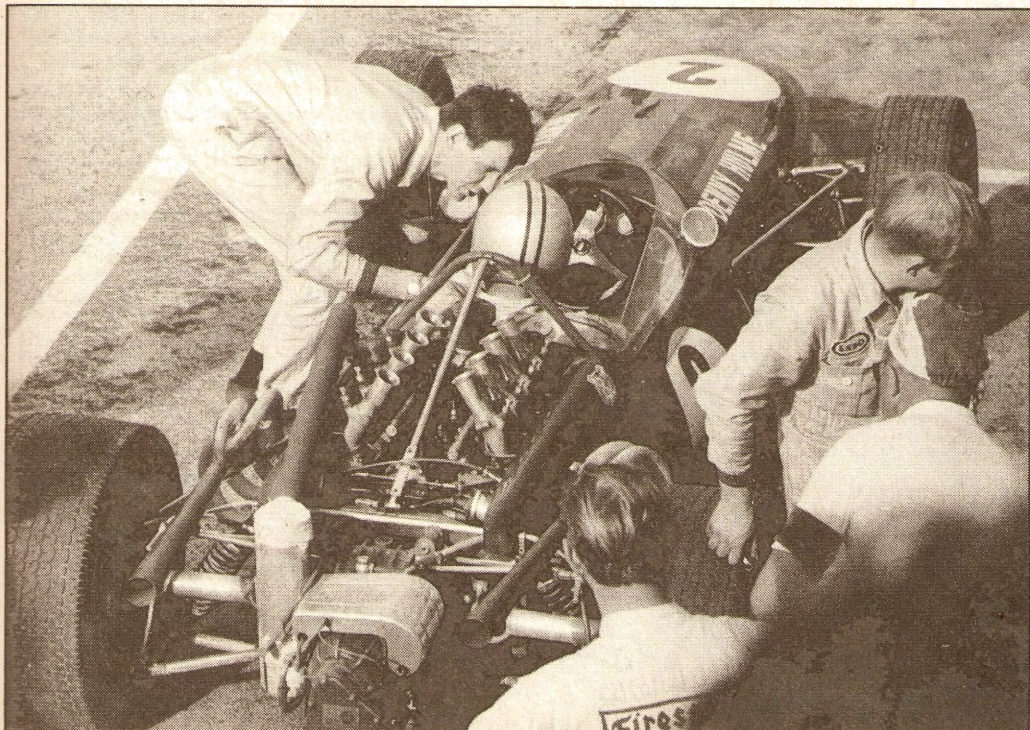
They don't just build formula car gearboxes, though. A lesser known sideline is the Hewland Arrow kart engine, a 100cc rotary valve single cylinder two-stroke of which some 2000 have so far been made, and which has won the British championship. They have also just completed a batch of 250 rear mounting gearbox/transaxles for the forthcoming Ford Group B rally car.

Indeed, with the advent of Group B and the highly specialised, short production run semi-prototypes it has spawned, rallying could be an area of expansion for Hewland. "I'm staggered by the demands of rally car transmissions," admits Mike Hewland. He is presently developing a tuneable limited slip differential which would give different degrees of locking action for different conditions, and the wheel might turn full circle if rallying brings him back into four-wheel-drive.

"I know enough about four-wheel-drive to know I don't know enough about four-wheel-drive," is his enigmatic comment on the subject. From the man who devised a four-wheel-drive transmission for the 1968 USAC Lola that was so successful it ended up being banned and who can make some very critical observations about the 4wd Audi Quattro, it can only lead to something interesting. ■



Renault mechanics work on the FG400 box. Below: Denny Hulme in the Repco Brabham with a Hewland box putting the power down. Hulme and Brabham used to be regular callers at the first factory.



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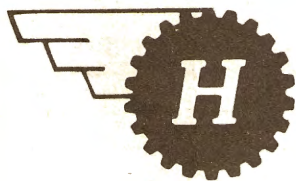
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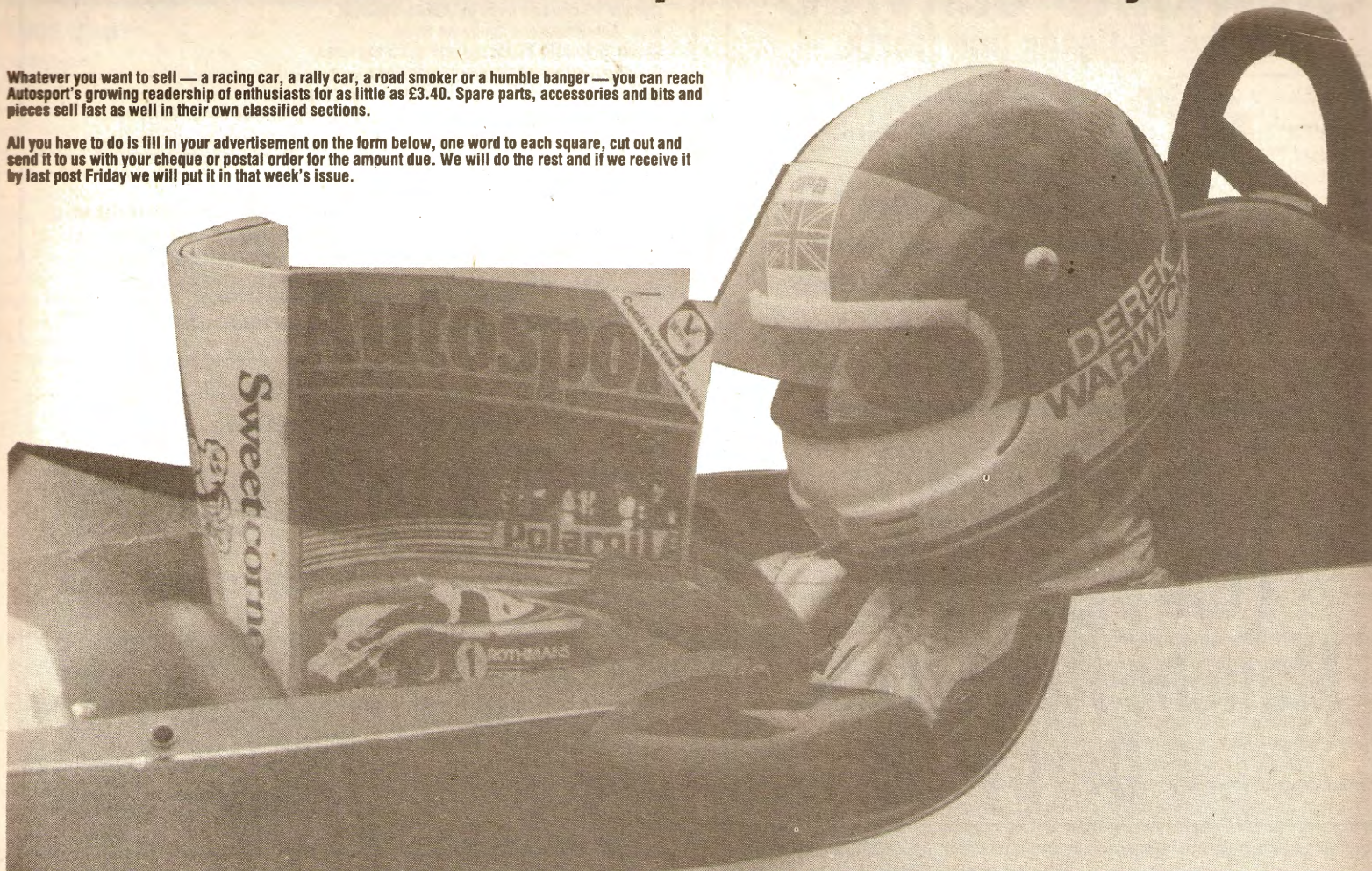
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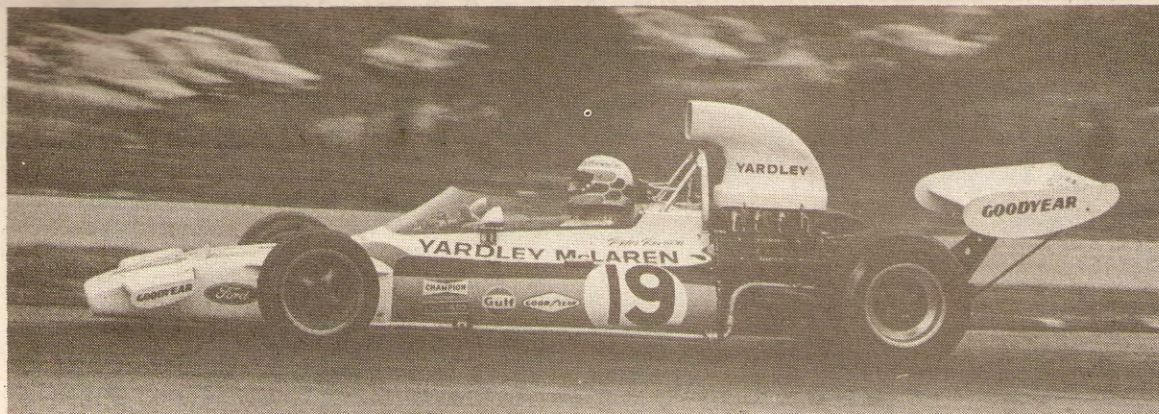
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Peter Revson powers his McLaren M19 round Watkins Glen in 1972. Two M19s will be out at Donington on Sunday.

Donington's F1 race

The Historic Sports Car Club's annual Donington weekend promises to provide a feast of nostalgia for buff and newcomer alike with no fewer than 16 races planned for Saturday and Sunday.

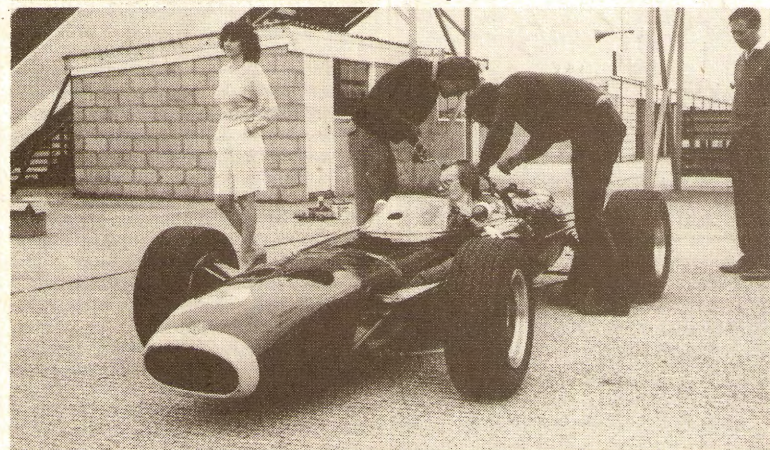
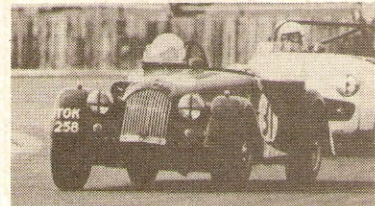
Rounds of all the club's championships are programmed for the first day

BP Keen on Morgan

Twenty years after it won the 2-litre GT class at Le Mans, Patrick Keen's famous Morgan, TOK 258, is still winning. Last season's overall Thoroughbred championship victor, the Morgan is again leading its division in Patrick's hands.

Additional sponsorship from BP has enabled the rapid combination to break the Silverstone class lap record recently. Will their long winning streak continue at Donington on Saturday?

Keen leads Woodcock's TR3 in TOK 258.



Anthony Mayman's BRM P261 turned a few heads at Silverstone.

Tasman BRM outing

One of the most interesting cars to appear at Silverstone last Friday was this splendid 1964 BRM P261 which owner Chris Mayman whirled round with abandon after completing a few laps in his older Osca. Powered by a 2-litre Tasman V8 engine the BRM screamed

although much interest will surround Sunday's race for historically interesting F1 cars which has attracted a small but select entry.

Both John Foulston and Mike Littlewood are entered in 1970-2 McLaren M19s (the latter in Ken Moore's exam-

ple) while John Brindley is bringing back Nick Mason's Tyrrell 008 — an ex-Depailler chassis which has scored points in this year's British F1 series! — and Bobby Bell his BRM P153.

John Narcisi's Brabham BT6 and another Foulston-entered car, an ex-UDT Laystall team Lotus-BRM 24 represent the earlier eras while it is hoped that Bill Friend's fine Lotus 78 and one of John Jordan's BRMs will join the fray.



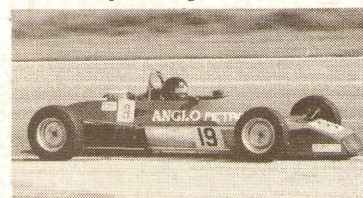
Clive Wood went well at Gurston in his hastily converted Van Diemen RF81.

Wood diversifies

Pine City Racing proprietor Clive Wood had his first taste of single-seater hill-climbing at Gurston Down on Sunday but was forced to substitute an FF1600 Van Diemen RF81 for the ex-Rob Cooper Lola T560 when the FF2000 car's

engine rebuild was not completed in time. The Bournemouth man enjoyed himself thoroughly, taking a welcome break from the circuits on which he runs David Harper's Anglo Petroleum RF81 and a similar car for Alfonso Garcia.

David Harper's Anglo Petroleum RF81.



New Tiga FF1600 car imminent

Howden Ganley's new Tiga FF1600 contender is currently nearing completion at the company's High Wycombe factory and will be debuted next month by quick Londoner John Davis.

The Formula Ford car, the first British specification Tiga for the category for a couple of years, bears a lot of resemblance to the FF2000 car which Gordon Friend ran at the end of last season but features a similar rear-suspension set up to that of Tiga's current Atlantic chassis.

Ganley was present at Silverstone last week to oversee testing of the FA82 Atlantic cars and even took a turn behind the wheel himself prior to the arrival of James Weaver and John Sheldon. Development work concentrated on improving the turn-in characteristics of the promising and attractive machine.

Briefly . . .

● Congratulations to hillclimber Mark Williams and his wife Sandy whose first child, Michael, was born just before the British GP meeting. Grandfather, 'again', Ted's grin could not have been wider throughout the meeting where he stopped toasting the youngster for a while to race his ex-Amon March 707!



The fearsome Mustang of Alvin Powell.

● At Gurston Down on Sunday one of the sights of the day was Alvin Powell fighting his Boss Mustang through the Karousel. Alas an engine bay fire put the 5-litre Ford out after just one run but spectators are eagerly awaiting its return to the hill.

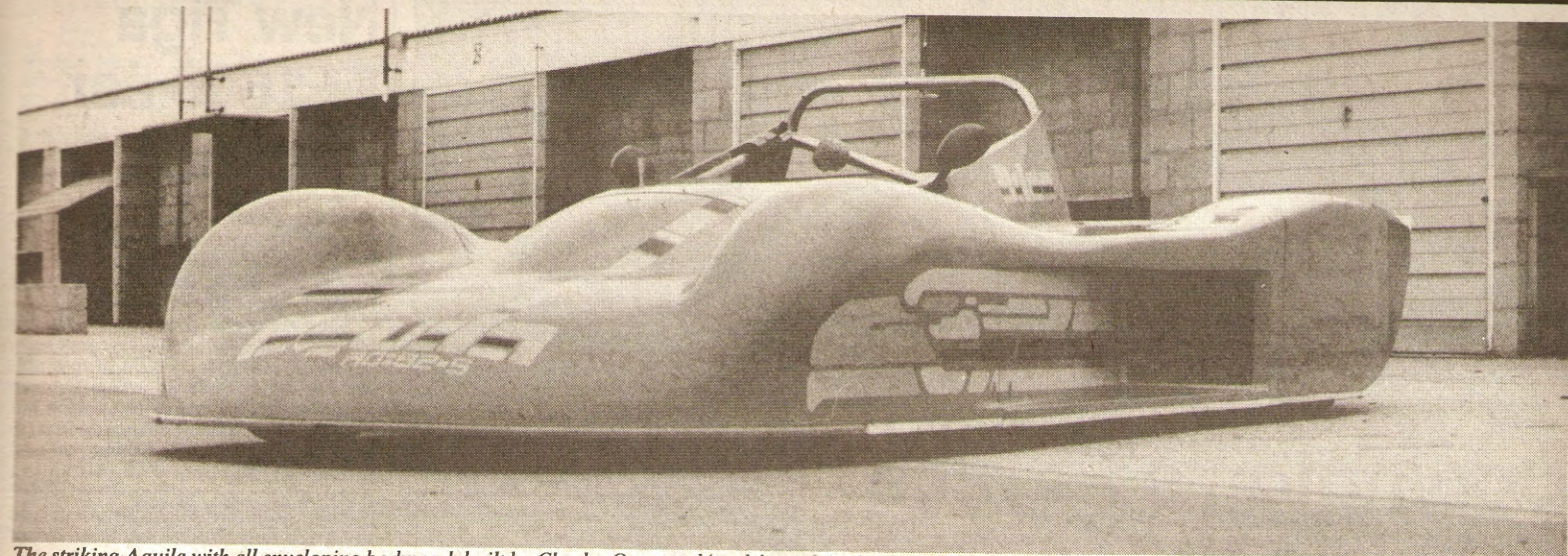
● Two March-Volvos have been entered by the Boddice Monoposto team for Sunday's *Formule Libre* race at Mallory Park. John Lowe will be out in his 773 chassis while Richard Bolton has a year-older 763.

● The ex-Stewart Phillips Sparton SF79 FF2000 chassis is running on the hills this year in the hands of Nick Leeks.



British Women Racing Drivers Club Chairman Susan TP-Jamieson was out at Silverstone last week with her father's new Muraspec F4 contender. The Tucker-Ford 007 is very neatly finished although needs sorting at present but Mrs Jamieson is expected to have some scraps over Ladies' honours with Viv West's Delta.

New Racing Cars



The striking Aquila with all enveloping bodywork built by Charles Owen and 'eagle' graphics designed by Bob Burrows.

Aquila RO:82-S

MARCUS PYE has been to see the most exciting and innovative Sports 2000 car built to date.

Three years ago, when Richard Owen originated plans for his own state-of-the-art Sports 2000 racing car, it represented little more than a dream for the innovative but impecunious British designer. Drawing on an impressive 12 years of F1 experience, during which he worked on every aspect of the contemporary racing machine, Richard penned the most advanced concept which he felt to be practical within the S2000 guidelines. American driver Bert Biles recognised the potential of the design and commissioned the construction of the first chassis — thus the Aquila (pronounced a-keela, after the constellation of stars) project was born.

Over the past couple of years, the Aquila RO:82-S chassis has taken shape and Dr Biles's confidence in Owen's engineering ability has not been unfounded. Indeed, how could it have been? At 30 years of age, Richard has now been building racing cars for longer than he hasn't! The first Aquila RO:82-S ran faultlessly 'straight from the box' at Silverstone last week and at competitive pace with Owen and Biles taking the wheel. For both men, and third business partner Dr Vicki Clegg in the USA, a dream has become reality. The distinctive car will make its race debut at Pocono next weekend and replicas will be offered for sale on British, American and European markets.

A great deal of thought was put into the Aquila RO:82-S design by Richard, who was determined to produce the ultimate S2000 contender. "Designing a simple car is actually more difficult than designing a complex one. It is comparatively easy to draw a basic design then hang brackets all over it, but the trick is to make a sophisticated car look simple.

"I started with a completely clean sheet of paper and no pre-conceived ideas other than a list of criteria to which the car should conform. Naturally, driver safety should be of prime importance and a very stiff chassis was also desirable. A designer must work around the characteristics of the control tyres in the Ford Formulae when deciding upon the suspension geometry. A low centre of gravity, optimum corner-weight balance and light weight were also aimed for on the Aquila.

"We decided to spend as much of the budget as we could afford on wind-tunnel testing at MIRA. Having done quite a lot of work in the tunnel with Williams and Shadow, I was familiar with procedures, although inevitably testing — with a quarter-scale model — raises as many questions as it answers. Obviously we designed the bodywork to produce minimum drag without sacrificing downforce, utilising a new principle which has become apparent during our research."

The beautiful teardrop body profile

AQUILA RO:82-S

Type: Sports 2000

Chassis: 'Quad-box' aluminium monocoque with tubular bulkheads, fore, mid and aft and central backbone. Tubular engine bay to carry power unit unstressed.

Engine: Ford Pinto SOHC, 1998cc. Tuned by Bill Noble (Biles's car) or Nelson Engine Services (customer cars).

Gearbox: Hewland Mk9, four-speed transaxle. Single-plate Ford clutch.

Suspension: Front: unequal length wishbones, fabricated upright with zero kingpin inclination. Rear: reversed lower wishbone, single top link with unequal length radius rods.

Machined cast hub carrier. Koni spring/damper units all round. Adjustable anti-roll bars.

Steering: Pace rack and pinion with adjustable clevises. Arcos quick-release steering wheel.

Brakes: Discs all round, 10½in front; 9¾in rear with twin-piston Girling calipers. Discs mounted inboard at rear, on gearbox. Adjustable balance. Aeroquip lines.

Wheels/Tyres: Compomotive Turbo Aquila modular wheels. Control tyres: Dunlop (GB) or Goodyear Eagle (USA).

Body: Full envelope airfoil design in three sections with adjustable splitters front and rear. High density polyethylene rubbing strips on lower edges.

Communications: Radio Flyer two-way unit, car/pits, with antennae.

Price: £11,500 plus VAT (GB), rolling chassis less engine. USA on application.

Manufacturer: Richard Owen Design & Engineering, Unit 5A, Silverstone Circuit, Towcester, Northants, England. Tel: (0327) 857121. In USA: The Biles Racing Brigade, 1120 Bertrand Street, Manhattan, Kansas 66502, USA. Tel: (913) 537-9400.

Radio communications

Unique to the Aquila RO:82-S is a newly-developed two-way radio system which links driver to pit crew at all times. An adaptation of Citizens Band radio to suit motor racing applications, the system uses the American-made Midland equipment and will be marketed under the Radio Flyer banner. Much of the conversion of the components to 'racing' specification has been carried out over the past 18 months by Gary Austin and his team from Northampton Communications Ltd who have worked closely with Owen and Biles on this exciting project.

"The whole thing has become possible in Britain with the legalisation of CB radio," explains Austin, "although a great deal of thought has been put into the modification of the in-car unit, primarily to prevent vibration which can be a serious problem. The radio operates on a frequency of 27MHz FM although we are currently looking towards a UHF/FM version suitable for F1 and similar professional formulae. Radio Flyer systems are already used successfully by CART and NASCAR teams in the USA."

By using the proven Midland transmitters, quality and technical back-up is assured and the cost of a racing installation will be about £500 to customers wishing to have a system fitted to their own racing cars. Each installation is individually tailored to suit the

vehicle while the driver's helmet will be converted to take a neat microphone and speaker set.

A lot of development work has gone into the selection of the most suitable antennae for the car, keeping it fairly small and unobtrusive and matching it with the desired frequency. Operators may select one of around 40 channels on which to converse by a simple adjustment to the transmitter/receiver. The crew chief speaks to his driver by depressing a switch and talking into the lip mike while he can be spoken to when the driver pushes a tiny button on the steering wheel. A voice scrambler ensures privacy.

Obviously the system has many advantages. Lap times can be relayed instantly to drivers as can advanced warnings of hazards such as circuit obstructions. The driver may keep his pit fully informed as to the state of the chassis, engine and a multitude of technicalities or warn of his intention to pit. Quality and range of transmissions is very good — I tried the walkie-talkie with Bert at Silverstone and was impressed — and Northampton Communications will operate a 24-hour call-out system should users experience problems. Owen is to market the Radio Flyer systems from Silverstone.

endows the Aquila with a drag coefficient of just 0.33 — a seven per cent reduction in drag was noted by shrouding the front wheels — "although these figures are of little value to a designer unless he knows the corresponding coefficient of downforce. That is a figure which I would rather keep to myself at present."

The chassis itself is very narrow and features, unusually, three longitudinal members for additional rigidity. A centre 'backbone' bisects the cockpit, giving no fewer than six skins to the monocoque and excellent driver protection when coupled with the sturdy tubular bulkheads and roll hoops.

To achieve a better weight balance from side to side components such as the oil cooler, dry sump tank, filter, battery and coil have been mounted to the left of the centre line, thus helping to negate the effect of the driver's weight on the right.

Safety features include the centrally-located Premier rubber fuel cell, five kilo Lifeline Halon fire extinguisher (electrically triggered), Willans six-point competition harness, optional life support system and Owen's unique Arcos Developments quick-release steering wheel. Used by many F1 teams, this is adjustable fore and aft and can be removed completely in seconds by operating a special flange mechanism.

The cooling of the 2-litre Ford Pinto engine is critical on a fully-enclosed

S2000 car, particularly in the USA where track temperatures can reach 140 deg F. Lightweight Volkswagen aluminium matrix radiators are located in front of each rear wheel and fed by ducts in the Aquila's flanks. These have proved to be super-efficient in testing — with one blanked off completely, the engine ran at a constant 65deg on a warm day.

Suspension geometry is along conventional lines with the exception of the front uprights which feature zero kingpin inclination to eliminate 'jacking' and camber change while cornering. Tyres, therefore, remain a large contact patch on the road at all times. Caster adjustments have been made to restore ideal steering weight. Specially calibrated Koni dampers are incorporated as standard as is the cockpit-adjustable front anti-roll bar slider.

Aeroquipped brakes, ducted at the front, add considerably to the safety of the car. Bias between the large Girling disc/caliper units is altered by the driver by a knurled knob on the dash. A custom made Pace steering rack is fitted, with simple bump-steer adjustment facility, while a 10ins Personal wheel rim enhances the pleasant ratio.

Cockpit dimensions show much consideration of ergonomics as well as safety, driver accommodation being superbly comfortable. Inclined tachometer mounting allows a clear view of this important gauge while smaller

Richard Owen

Richard Owen's first involvement in motor racing came in 1964 when, at the age of 12, he and his father Charles built their first race car. Called ARCOS — for A Richard and Charles Owen Special — it was to be the first of six advanced vehicles with which the Owen family competed in Reliant 750F events until 1976, when the Mk6D was finally sold. Richard had his first race in 1969 and won 10 National rounds between 1973-76 with the ARCOS cars, combining his own racing aspirations with a thorough grounding in all aspects of design.

Richard spent six years with BRM in Bourne, joining the staff as junior development engineer after a five-year technical apprenticeship before moving to Frank Williams's team in 1974, "his poor days". Thereafter Owen joined the Shadow operation, designing their swift DN 10 CanAm challenger — an under-financed venture using fragile Dodge engines — before being given the task of keeping the ageing DN9/B F1 chassis competitive.

Owen had already begun preliminary work on his own Sports 2000 racer when he founded Richard Owen Design & Engineering in workshops at Silverstone circuit in May 1980. The chance introduction to Bert Biles saw Richard commissioned to prepare full working drawings of his S2000 project and in March 1981 the go-ahead to build Aquila

was forthcoming with Biles, Vicki Clegg and Richard as directors of the new trans-Atlantic venture.

With Richard fully committed to building the futuristic chassis, Charles Owen voluntarily forsook his hard-earned retirement to assume responsibility for the Aquila's futuristic bodywork concept. Having spent many years in the field of classic car restoration, he was fully conversant with many aspects of automobile engineering but his previous experience with glassfibre work was limited to building a 27ins hull for son Robert's speed-record holding model boat!

Over 700 hours of graft were ploughed into producing the first body and the craftsmanship is superb. At 67 years of age, Charles has produced a masterpiece, fully acknowledged by his son. "My father has always supported me in racing," says Richard, "and he is a tremendous asset to the project. Dave Abbott, who has worked on the project from the start, deserves a lot of credit too, for I rate him very highly as an engineer while Geoff Kingston, our most recent recruit, has also put in some invaluable work. Building a new car is all about team work and I am putting together a team for the future so I want qualified technicians, not a band of grease-monkeys. The Aquila project has brought out the best in everybody I think."

Smiths instruments and the Radio Flyer communications system are also conveniently sited. The short gear lever is ideally placed on the right and gives a very slick change while the well-designed pedal assembly is adjustable within the solid, dual bulkhead, footbox.

The major talking point of the Aquila RO:82-S, though, is sure to be its striking bodywork with more than a touch of 'Disco Volante' about its unique lines. Lovingly crafted by Charles Owen to Richard's specification it really is a masterpiece, fairing in the chassis and running gear in a supremely efficient and aesthetically pleasing manner judging by initial testing results.

Moulded, flawlessly, in three parts for ease of replacement, the glassfibre envelope retains the car's centre of aerodynamic pressure at its centre of gravity regardless of speed. The Aquila's stability and speed on both Silverstone circuits was phenomenal as I noted both from within the cockpit and from the spectator banks. Movable splitters front and rear can be used to trim the aerodynamics while replaceable polyethylene rubbing blocks prevent damage to the body's lower edges on the circuit. Despite a ride height of only 2½ins on Friday, only one strip made contact with anything — and that was a kerb proving that the Aquila's roll is negligible.

Following successful shakedown runs on the GP circuit last Tuesday, Owen and Biles drove the RO:82-S from the workshops out to the club course on Friday, again with highly encouraging results. Richard did most of the development driving and within 30 laps was recording consistent times in the mid-59s bracket. His best of 59.2s, set on American Goodyear Racing Eagle tyres, was merely 0.6sec outside the class lap record. This reflects well on his driving ability, even after a long lay-off, and adds yet another facet to the expertise of this multi-talented young man. The car's owner was about a second slower, again most creditable considering his lack of circuit time and knowledge in the past couple of years.

I enjoyed a very brief run in the Aquila, sans bodywork, on Thursday and found that it inspired immediate confidence. Not only was it very stable even in that form, and comfortable to drive but its handling felt excellent. Mighty brakes and the best Hewland gearchange I've never experienced added to its virtues. Out on the circuit the following day Richard exploited its potential further. With someone like Tommy Byrne at the wheel, by his own admission, the Aquila would have been well inside the record.

More gratifying still was the fact that the car ran totally reliably on each of its outings — a tribute to its design, and the preparation of Dave Abbott and Geoff Kingston who have worked so hard on the project — and handles without vice. Howden Ganley of Tiga, S2000 brand leaders for many years, was seen taking a close interest in proceedings at Silverstone; "We think we can really give his men something to worry about in the coming months," echoed Biles and Owen.

"It's easy to build a one-off," says the designer, "but our car is intended for production so all the jigs and fixtures have been made already. We are aiming to construct the Aquila in batches of five," added Bert, "so now we must go out and sell the car through success."

Yes, it is going to be expensive at £11,500 plus VAT for a rolling chassis. Then again you always pay for quality. The Aquila RO:82-S is built, unashamedly, to full F1 standards. It is certainly the most significant new car at this level of the sport for many years! ■

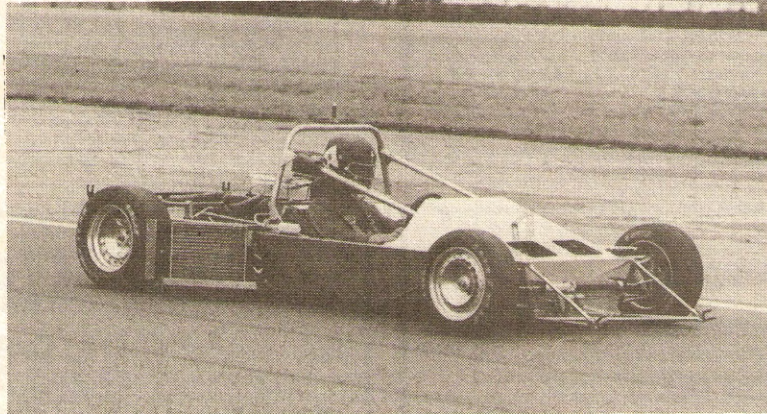


Bert Biles

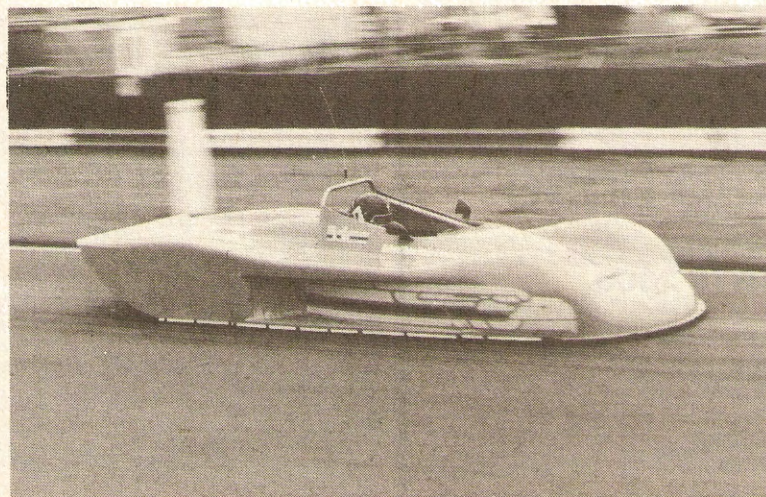
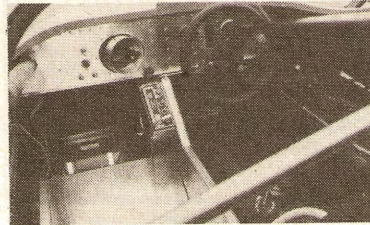
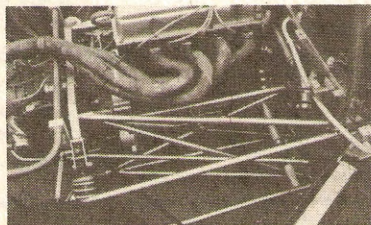
Co-director of the Biles Racing Brigade and prime mover in the Aquila RO:82-S project is Dr Bert Biles, whose racing experience goes back to 1972. Biles is the Assistant Dean of the Graduate School at Kansas State University in his home town of Manhattan. "I work with 20,000 students in 2000 faculties, helping to design projects and prepare grant applications to provide federal government funding in support of research."

Biles competed in 1200cc FVee events for four years before graduating to FSV with a Royale RP19A, again using the air-cooled Volkswagen engine before the inception of the modern water-cooled Golf/Scirocco units in the formula. Bert qualified for the National championship run-offs for four successive years before deciding to try something new at the beginning of 1980.

"The question was in what? I did not particularly want to continue with open-wheelers and the Sports 2000 category appealed immensely. I then had to decide where the best cars were built. Certainly not in America — why, even Roger Penske builds his cars in England — so I toured the manufacturers early in the year. I really wanted something different though, so I asked Alan Cornock of Royale (who did not produce an S2000 chassis then, incidentally) if he knew of anyone planning his own S2000 project and he put me in touch with Richard Owen."



Above: the car is very small in all dimensions. Below right: the cockpit with radio installation to the left of the wheel. Bottom: the sleek bodywork clearly enables the Aquila to penetrate the air effectively, it being both fast and stable in testing.





AQUILA: The Future of Sports 2000 Racing

I would like to thank
ALL SUPPLIERS AND CONTRIBUTORS
For their help with the car

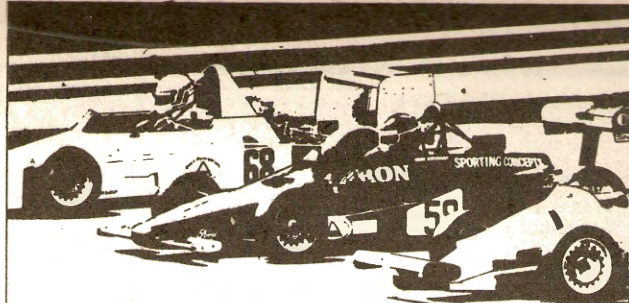
And in Particular
My Father,
Dave and Geoff,
and Milton Holland for making the 1/4 scale wind
tunnel model

Richard Owen

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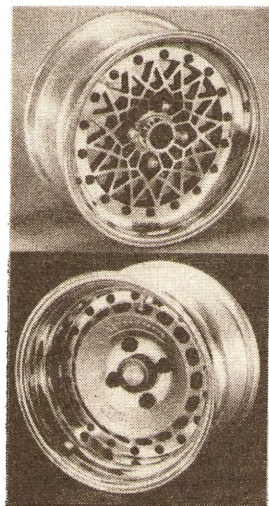
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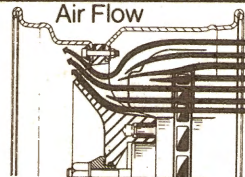
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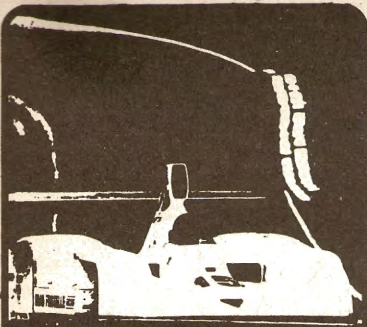
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International Races

ELKHART LAKE CAN-AM

No holding Holbert

Al Holbert took a convincing win in his Team VDS 001, to take the victory laurels at Elkhart Lake in Wisconsin, with a winning margin of over 20secs and also setting fastest lap in the process.

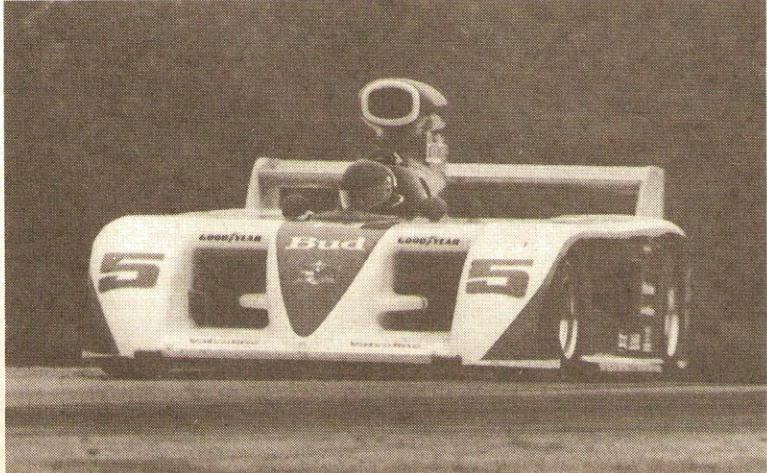
However, poleman Al Unser Jr, out for the first time in his modified Frisbee, which featured among other things new air tunnels, proved its effectiveness by setting a new track record during practice with a 1m 59.695s lap. And it was Unser who provided the biggest challenge to the VDS car. From the start he took the lead with Holbert in tow, until a driveshaft broke on the new car, letting Holbert through into the lead. This he held comfortably until the end, although briefly challenged by Danny Sullivan, until a refuelling problem.

Otherwise, the only other real contender was John Morton in his Frisbee, who qualified fourth on the grid, but then spun on the first lap. Collecting it together though, Morton stormed up the pack to third place until the gearbox gave way to end a good drive.

In the under 2-litre section, Bertil Roos in his Marguey dominated proceedings, taking the group and finishing third overall as well as setting a new lap record for the 2-litre division.

A Group C car added extra interest to the race, this being the first time that a Group C machine had appeared in a CanAm race. The car was the Ralph Kent-Cooke Lola T610 that raced at Le Mans earlier this year, fitted with a DFL. However, it proved disappointing. Jim Adams could only qualify the car a

Second place was Danny Sullivan's reward in his march 872.



distant 15th on the grid and went out of the race after only four laps, when it was some 12secs off the pace.

Another debutant was Val Musetti in the Colin Bennett run March, Musetti qualifying ninth and then running well during the race until lap 8 when second and third gears started to disintegrate.

GORDON KIRBY

ELKHART LAKE
Jul 25
Budweiser/7-Eleven CanAm Challenge, round 4
40 laps — 160 miles
 1, Al Holbert (5.0 VDS-Chevrolet 001), 1hr 23m 36.61s, 114.819mph; 2, Danny Sullivan (5.0 March-Chevrolet 827), 1hr 23m 57.03s; 3, Bertil Roos (2.0 Marguey-Hart CA82), 39 laps; 4, John Kalagian (5.0 Frisbee-Chevrolet), 38 laps; 5, Randy Lewis (5.0 CAC-Chevrolet 1), 38 laps; 6, Frank Joyce (5.0 CAC-Chevrolet 2), 37 laps; etc.
Fastest lap: Holbert, 2m 01.354s, 118.661 mph.

F ATLANTIC/FSV

Moodie in the mood

The Formula Atlantic supporting race on the SCCA's bill last Sunday proved to be an eventful occurrence, not only featuring some good racing but also full of controversy too.

Points leader Tim Coconis was sitting comfortably on the pole in his Ralt RT4 when the officials decided to make an impromptu skirt ride-height check, and found the pole-sitter not to be within the letter of the law. Coconis was sent back to the pits where he was told to make the necessary alterations and start from the pit lane in last place when all was well and good. The alterations done, Coconis steamed out of the pits in a dreadful temper subsequently spinning and then retiring to the pits where he proclaimed that he would never drive in an Atlantic race again!

Otherwise, the race was highlighted by some interesting dices especially for the lead, John David Briggs taking his first real victory by outbraking Dave McMillan's Ralt on lap 3 to take the lead. McMillan held onto second until a puncture saw him head for the pits and finish a couple of laps down.

In the SuperVee race, held on the Saturday, Eddie Pymm surprised everybody with the speed of his Ralt RT5, which, with a time of 2m11.475s, put him close to the Atlantic pole time. Furthermore, Pymm was the first man to run

the Ralt successfully without the front wings, something other contenders have been vainly trying to do, and so successfully did he do it that it put him ahead of his rivals by over a second.

However, the race was another story, and after opening up a 3-4secs lead, second gear stripped, and then the rest of the box started to go, Pymm finally slipping back to fourth. So victory went to Peter Moodie in the Anson, making its SuperVee debut, running second all the way until Pymm's misfortune promoted him and then settling down comfortably to win by 3.9secs.

GORDON KIRBY

ELKHART LAKE (USA)
Jul 25
North American Formula Atlantic Championship, round 6
25 laps — 100 miles
 1, John David Briggs (Ralt RT4), 54m 53.49s, 109.307s; 2, Norm Hunter (Ralt RT4); 3, Josele Garza (Ralt RT4); 4, Allen Berg (March 82A); 5, Price Cobb (Ralt RT4); 6, Whitney Ganz (Ralt RT4), etc.
Fastest lap: Mark Moore (Ralt RT4), 2m 10.47s, 110.369mph.

ELKHART LAKE (USA)
Jul 24
Robert Bosch/VW Super Vee Championship, round 5
15 laps — 60 miles
 1, Peter Moodie (Anson SA3C), 33m 40.76s, 106.890mph; 2, Davy Jones (Ralt RT5); 3, Mike Andretti (Ralt RT5); 4, Eddie Pymm (Ralt RT5); 5, Stan Fox, (Ralt RT5); 6, Brad Hawkings (March 80SV), etc.
Fastest lap: Pymm, 2m 11.5s, 109.5mph.

ELKHART LAKE TRANS-AM

Hansen's old hand

The TransAm runners were also on the SCCA's 'spectacular' and they provided some exciting racing. But most satisfying of all must have been Jerry Hansen's win in the Chevrolet Corvette. The veteran driver scored a flag to flag victory from pole in a popular home victory, especially when it is remembered that Hansen is not a regular runner in the series.

Behind him though, there was a terrific scrap for second between Steve Saleen who qualified second on the grid, Elliot Forbes-Robinson who qualified third, both in Huffaker Racing Pontiac Trans-Ams, and Tom Gloy (Ford Mustang) who was fourth on the grid. This group battled hard together with Forbes-Robinson just leading Gloy and Saleen until Forbes-Robinson missed a gear and dropped a valve so handing second to Gloy. However, Gloy's glory was short lived as his engine expired at the halfway mark handing second to Saleen who was eventually overtaken by Darin Brassfield (Pontiac Trans Am) before both were involved in a huge accident, although luckily both escaped unharmed.

GORDON KIRBY

ELKHART LAKE (USA)
Jul 24
CRC Chemicals Trans Am Championship, round 7
25 laps — 100 miles
 1, Jerry Hansen (Chevrolet Corvette), 1hr 2m 52.42s, 95.429mph; 2, Karl Shafer, (Pontiac Trans-Am); 3, Billy Currin (Chevrolet Corvette); 4, Rick Stark (Chevrolet Corvette); 5, Doc Bundy (Porsche 924T); 6, Loren St Lawrence (Mercedes Benz 450SL), etc.



Ragnotti — Renault 5 Turbo win.

PAUL RICARD

Vive le sport!

The spectators at last weekend's French Grand Prix meeting certainly had no cause for complaint about the number of races on the programme. In all, there was a total of 11 events, some of them more important than others. The best lead battle was to be seen from the European Renault 5 Turbo field, where four cars were tied together for most of the distance before Jean Ragnotti came through on the final lap to score a narrow victory.

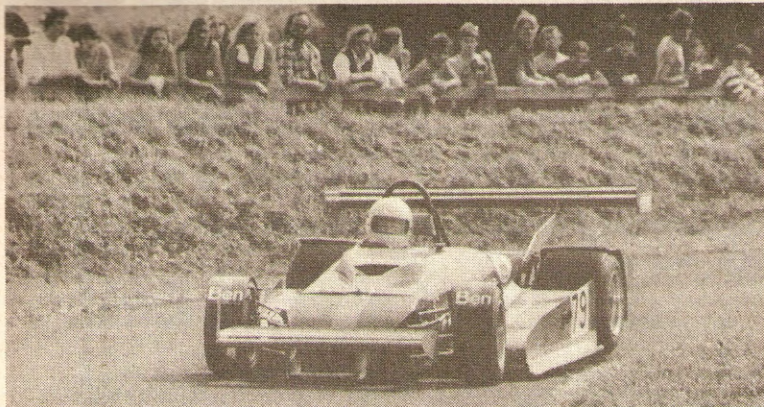
On Saturday, there was a round of the French Production (Group A) championship, which provided a clear victory and return to form for the Garage du Bac/Motul BMW 528/530i of last year's champion Jean-Pierre Malcher. He was headed for the first couple of corners by Jean-Claude Lagniez's fast-starting Chevrolet Camaro but thereafter, there was no-one to challenge Malcher, although he was all but taken off while lapping a back-marker on the final lap!

René Metge gave spirited chase in his Marlboro Rover before mechanical failure forced him out, so Lucien Guittény (BMW) took over second and managed to withstand a strong challenge from first lap spinner Dany Snobeck, who claimed the 2.5-litre class honours in his Alfa GTV6. A titanic battle took place behind him, Xavier Lapeyre finally coming out ahead in his Team BP BMW.

The Renault 5 Turbo race really provided some good action as Ragnotti, Snobeck, Joel Gouhier and Peter Oberndorfer scrapped away for the lead. All took turns at the premier position and it seemed that Snobeck had opened up a slight advantage as they started their final lap. Ragnotti, however, winner of the opening round of the season, had other ideas and somehow scraped his Elf-liveried car ahead of Snobeck with Oberndorfer and the consistent Gouhier, who still leads the championship quite convincingly, close on his heels.

Another close battle for fifth place saw Wolfgang Schüz stave off Hans Hoyer by a couple of feet, while Jan Lammers could manage no better than seventh in his Ebel Watches car.

The Formula 3 race, counting towards the French Championship, drew a very good entry of cars with 30 cars qualifying to start. Fastest in practice, as he has been for much of the season, was Pierre Petit in the Dave Price Racing/Credit Agricole Ralt-Volkswagen, although alongside on the front row sat the car used by Petit at the beginning of the season, a



Plucky Joy Rainey brought her Murrain home second in its class.

Basil Pitt was easily the class of the Sports Racing and GT division with his Datalinski but Joy Rainey's troublesome Murrain-FVC improved dramatically to beat David Keer's ex-Richard Brown Haggispeed later on.

Eryl Davies's Anson-BDJ and Jerry Sturman's Harrison-Imp tussled throughout the day for 1100cc racing car honours, the more powerful Ford-engined device leading by 0.12sec initially and a mere 0.06sec after the decider. Bob Jones's super Cooper Mk8 went well to finish third. Geoff Hunt's pretty March led the 1600s on the first run with Hedley Hutchins's Brabham snapping at his heels but first climb spinner John Frampton — in the same Brabham — moved into contention later, by which time both class winner Hunt and Hutchins had jumped a step further away.

Just four cars contested the 'big' racing car class, Fry being quickest throughout. As he set BTD the class award passed on to John Meredith's Chelcam March.

After some lunatic motorcycle action — not for the faint-hearted — the Top 10 BTD series contenders returned.

First to go Keith Norman (Mallock) improved upon his qualifying time on both runs, climbing to ninth ahead of Sturman who lost time with a clutch problem on the opening ascent. Davies retained his eighth place with the Anson although Brian Moysse, who had equalled his first mark of 34.34s, went 0.02 sec better than his improved time for seventh with the U2 Mk16M. Back to sixth fell Pitt whose class runs were not matched while up ahead of Basil hurtled Joy Rainey whose Murrain showed its prodigious speed between Ashes and the finish after stuttering through the Karousel. Lloyd, secure in fourth place, put in his flyer on the last run which equalled Crump's earlier clubmans record but, by this time, Neil had gone one better with an unreal climb of 32.81s. Third overall, Crump's U2 broke its diff on the line at the final hurdle while Meredith's March shot a driveshaft coupling having earned second. He could not have approached Fry's Pilbeam though for the sophisticated F2 car was already 1.6s to the good and about to extend that margin. The Ferret was uncatchable.

MARCUS PYE

SHELSLEY WALSH

Griffiths gathers

Martyn Griffiths moved into the lead of the *Birmingham Post* Top Ten Challenge on Saturday, July 10, with a well judged win after this main competitors fell into trouble.

It was a nice, warm summer's day that greeted Tony Tewson and his Greetham Imp as he swiftly made his way up the hill for the first class win of the day, 0.5sec ahead of second placed man Dave Watson. With the benefit of a new clutch, Nic Mann made short work of cracking the class record with his first run. Any hope of lowering the time still further was dashed on the second run with a huge sideways moment during braking for the esses.

The up to 1600cc GT and Modsports class was dominated as usual by Richard Naylor. His first run time was good enough to give him the class by a substantial margin, which was just as well because his attempt to improve during the second run ended in disaster when the Davrian Mk6 rolled in the esses after making heavy contact with the bank. Naylor was fortunate enough to get out unharmed. In the large capacity GT and Modsports class, Josh Sadler was as dominant as usual, no doubt spurred on by his tweak of the week: a newly painted gearknob!

In the Clubmans up to 1700cc section, the pace was set by Neil Crump in his Mallock with a time of 30.72s. Alan Lloyd in his similar car gave enthusiastic chase but failed by only 0.06sec to get on terms. After likely up to 1600cc sports racing and clubmans class winner John Beattie had the misfortune to have the engine of his Mallock blow during his first run, it was left to Jim Robinson in his Mallock to clean up, being over a second ahead of the next man.

Graham Priaux, his immaculate red Tiga SC80 displaying prodigious grip, had little trouble cleaning up the unlimited capacity sports racing and club-

mans class, while Pete Wright had little trouble winning the up to 500cc racing car section. The shared Brabham BT 28 of Paul Squires and Phil Kidsley dominated the 501-1100cc racing car class. Squires won the battle, coming in 0.43sec ahead of his co-driver. It was a shared car that also set the pace in the next category, this time the turbo engined March 772 of Rob Oldaker and Andy Smith. Minor valve problems have now been solved and the car is back as a front runner. The two drivers spent most of the meeting seeing who could produce the most spectacular climb but this entertaining battle came to a premature halt when the gearbox gave up the ghost in the esses during the second runs, leaving Smith the winner from his first run time.

In the two historic classes both Guy Smith (3.5 Frazer Nash) and Peter Cook (Ginetta G16) broke their class records only to find that the handicapper's had taken any hope of victory away from them.

In the Top Ten Run-offs, Godfrey Crompton's policy of using Peter Kaye's vast knowledge to help sort the difficult Toleman TG280 seems to be working with Crompton setting his best ever time at Shelsley. Sadly, an oil leak in the top paddock prevented both drivers from claiming their second runs. With his co-driver non-starting due to the imminent arrival of his wife's baby, Richard Fry's Pilbeam was in for a less hectic time than usual. Richard was sixth in the run-offs.

Max Harvey, this year sharing his car with Martyn Griffiths, is benefitting enormously from the latter's experience. Now always an easy top ten qualifier, Max eventually finished in fourth place. Next runner was former RAC hillclimb champion Chris Cramer in his Toleman TG 280H. Running without nose fins and on very stiff springs, the car seemed to give Cramer a hard time, although he hung on well and eventually gained an excellent second.

Current Pace RAC hillclimb championship hotshoe Martin Bolsover had a harrowing time in practice, putting his Pilbeam MP 51 high onto two wheels after a spin at the top ess. Fortunately, it came back down onto four wheels, the only damage being to the nose. After that his challenge began to fade.

That just left the two drivers who, between them, have won eight out of the last nine Shelsleys: Alister Douglas-Osborn and Martyn Griffiths. First to go was Alister. After approaching the esses at a staggering 122mph, he lost control of his Waring & Gillow Pilbeam at those notorious bends and hit the bank. Damage was surprisingly light, however, and ADO was able to complete his second run. Despite trying hard he was only able to record 27.76s for fifth place. That left local man Griffiths as the winner, the only man to get below the 27sec mark during the run offs. His win and Dave Harris's non-entry has given Griffiths the lead of the *Birmingham Post* series with three rounds to go.

ROBERT WALL

CHANNEL ISLANDS HILLCLIMBS

The RAC Hillclimb regulars journeyed to the Channel Islands last week for two rounds of their championship at Bouley Bay (on Thursday) and Val des Terres (on Saturday). Championship leader Martin Bolsover crashed his Pilbeam during the Jersey event, bending the tub and allowing Dave Harris to win the Top Ten run-off in his Pilbeam. Chris Cramer took BTD in his Toleman TG280.

Martyn Griffiths had been unable to get to Bouley Bay, but he arrived in Guernsey for Saturday's Val des Terres event determined to narrow Bolsover's championship lead. Bolsover managed to borrow James Thomson's Pilbeam, but spun on his final run and had to settle for ninth place in the Top Ten. He still leads the championship, however, since Cramer won the event from Griffiths. Bolsover hopes to have his own car repaired in time for the Craigtantle round this weekend. ADO had a terrible time in Guernsey, managing only tenth place, while Richard Jones (Mallock) and Graham Priaux (Tiga SC80) drove consistently to take Top Ten placings in both events.

Full report next week.



Buffum on Pikes Peak

The classic 5000ft climb, 12.42 miles of rough road on Pikes Peak, takes place in the Colorado Springs area every year on Independence Day. Although Bill Brister took his Coyote special to a new outright record of 11m 44.82s, one of the most significant performances came from John Buffum (above), who won the Pro Rally class in record time with his Audo Quattro.

GURSTON DOWN (GB),

Jul 25, BARC SW centre

Guyson Euroblast/BARC Hillclimb Championship, round 7

BTD: Richard Fry (2.5 Pilbeam-Hesketh/Hart MP41), 29.67s.

Class winners: Rodney Eyles (2.2 Talbot Sunbeam-Lotus), 40.15s; Don Statton (1.0 Sunbeam Imp), 38.55s; Tony Tewson (1.1 Maguire-Greetham Siletto), 36.33s; Nic Mann (3.5 Morris Minor-Rover turbo), 33.92s (record); Paul Channon (4.7 AC Cobra), 36.65s; Jonathan Dakers (1.3 Austin Healey Sprite Mk1), 41.78s (establishes record); Paul Tankard (4.7 TVR Tuscan), 36.37s; Neil Crump (Mallock U2-Chamberlain Mk14), 32.99s (record); Rod Jolley (3.5 Giron-Alvis s/c), 41.69s (record); Basil Pitt (1.6 Mallock U2-Datalinski), 33.65s; Eryl Davies (1.1 Anson-Ford BDU), 34.61s; Geoff Hunt (March-Ford 733), 34.02s; John Meredith (2.1 March-BMW 722P/782), 31.83s. Steve Sherbird (830 Norton), 36.41s; Paul Williams/Tony Stephens (1.0 Imp), 39.24s (record).

Guyson Euroblast/BARC BTD Awards Top 10 run-off: 1, Fry, 29.67s; 2, Meredith, 31.36s; 3, Crump, 32.81s; 4, Alan Lloyd (Mallock U2 Mk18), 32.99s; 5, Joy Rainey (1.8 Murrain-FVC turbo), 33.58s; Pitt, 33.68s; 7, Brian Moysse (1.7 Mallock U2 Mk16M), 34.21s; 8, Davies, 34.23s; 9, Keith Norman (1.7 Mallock U2 Mk17B), 34.43s; 10, Jerry Sturman (1.1 Harrison-Imp KH4), 35.01s.

SHELSLEY WALSH (GB), Jul 10

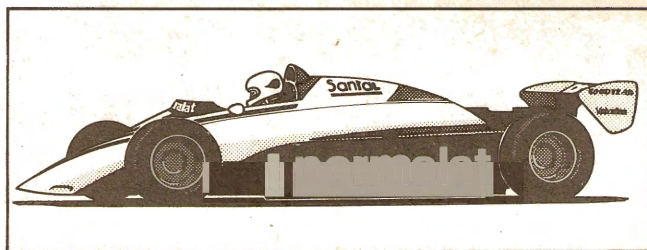
Swinford Motors Porsche Centre/Beacon Radio Midland Hillclimb Championship/Birmingham Post Top Ten Challenge series, round 6

FTD: Martyn Griffiths (2.5 Pilbeam-Hart MP53), 26.58s.

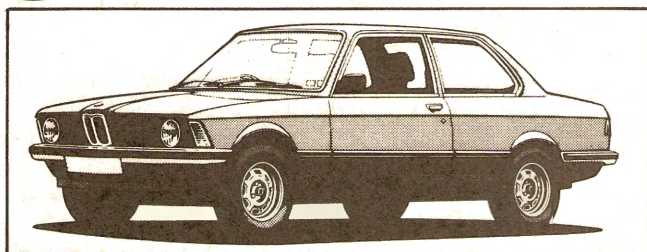
Top Ten Run-offs: 1, Griffiths 26.90s; 2, Chris Cramer (2.5 Toleman-Hart TG280H), 27.17s; 3, Martin Bolsover (2.5 Pilbeam-Hart MP51), 27.99s; 4, Max Harvey (2.5 Pilbeam-Hart MP53), 27.54s; 5, Alister Douglas-Osborn (3.7 Pilbeam-Ford Cosworth DFLMP47), 27.76s; 6, Richard Fry (2.5 Pilbeam-Hart MP41), 28.51s; 7, Peter Kaye (2.5 Toleman-Hart TG280), 28.44s; 8, Chris Dowson (5.0 Brabham-Repco BT36X), 28.68s; 9, Godfrey Crompton (2.5 Toleman-Hart TG280), 28.52s; 10, Alan Cox (2.0 Martin BM16), 29.48s.

Class winners: Tony Tewson (1.1 Greetham Imp), 32.94s; Nic Mann (3.5 Morris Minor-Rover tc), 31.42s; Richard Naylor (1.2 Davrian Mk6), 33.23s; Josh Sadler (3.5 Porsche 911), 31.84s; Neil Crump (1.7 Mallock U2), 30.72s; Jim Robinson (1.6 Mallock U2 Mk21), 29.95s; Graham Priaux (2.0 Tiga SC80), 28.78s; Pete Wright (500cc Cooper-JAP Mk6), 38.89s; Paul Squires (1.1 Brabham BT28), 30.79s; Andy Smith (1.1 March-Austin 722 tc), 29.75s; Griffiths, 26.58s; Mark Joseland (1.5 Frazer Nash), 46.62s; Paul Martin (1.3 Austin Healey Sprite), 45.79s.

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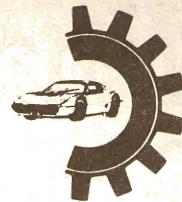
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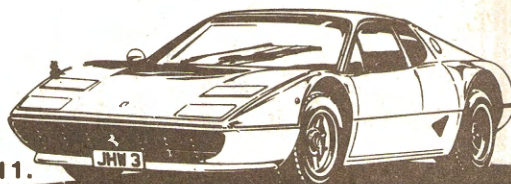


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Good luck to the Ferrari team in Germany.

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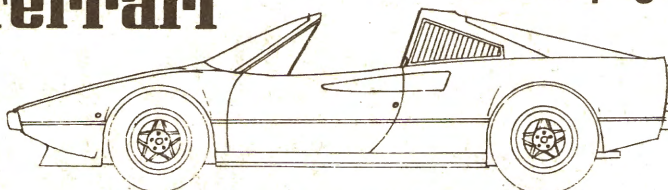


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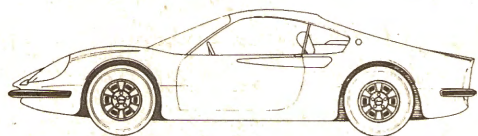


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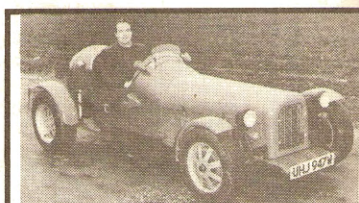
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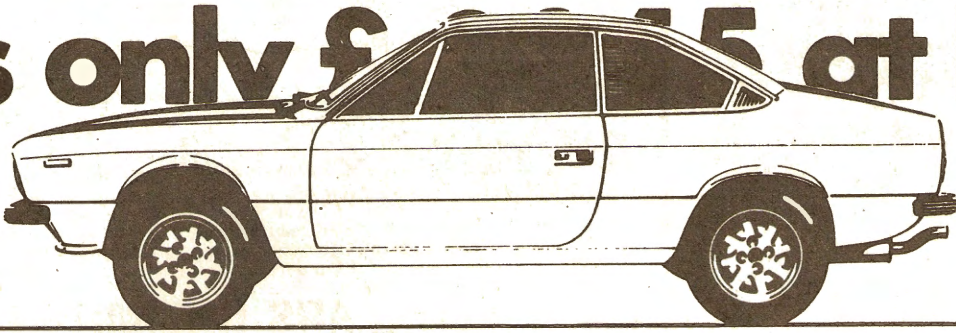
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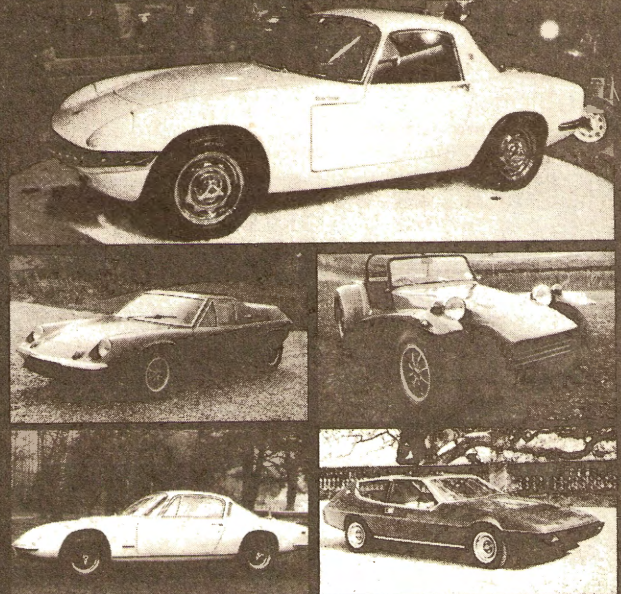
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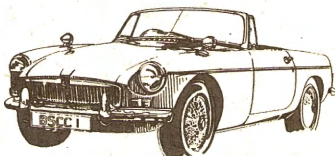
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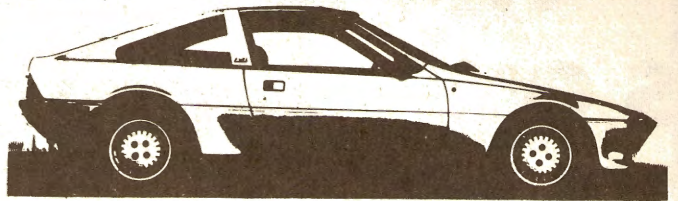
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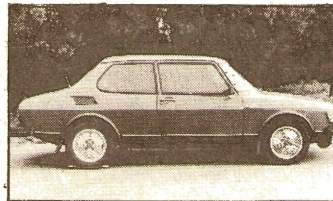
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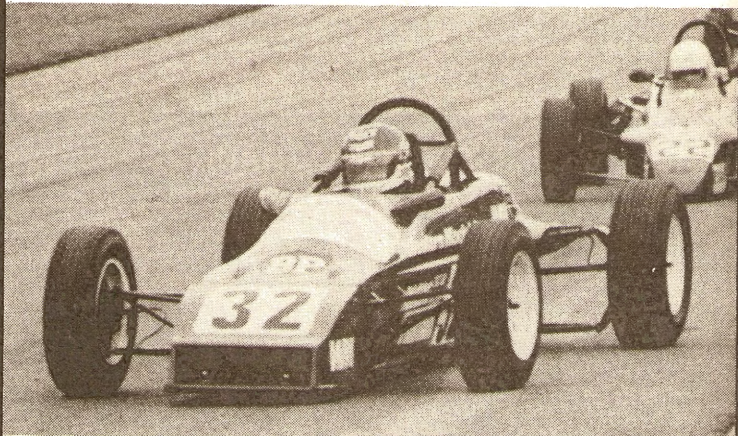
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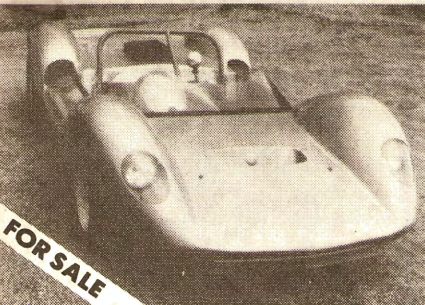
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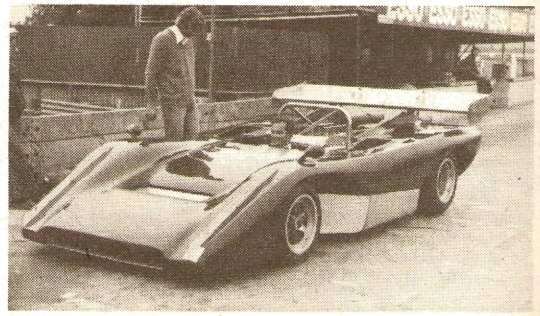
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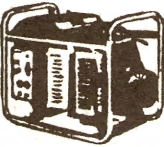
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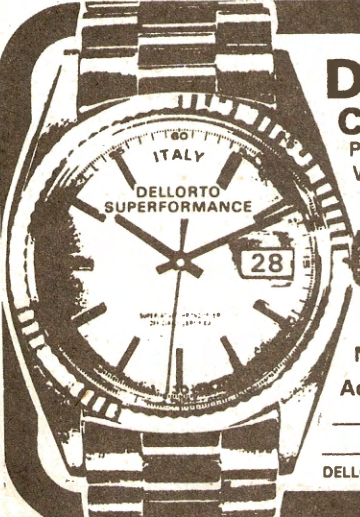
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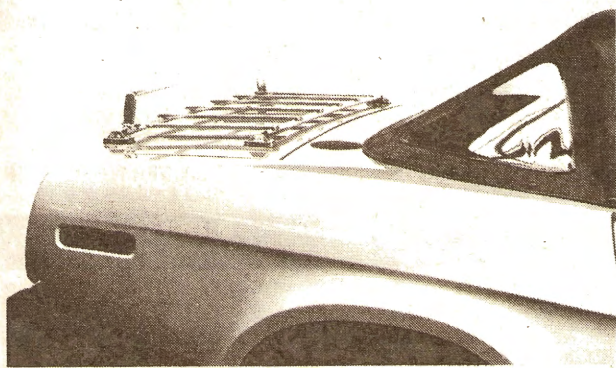
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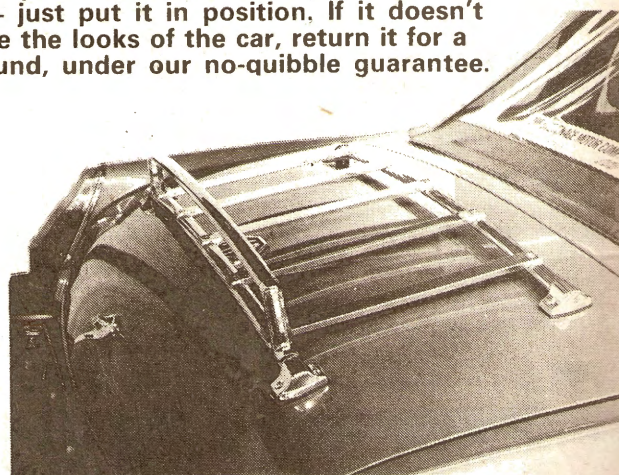
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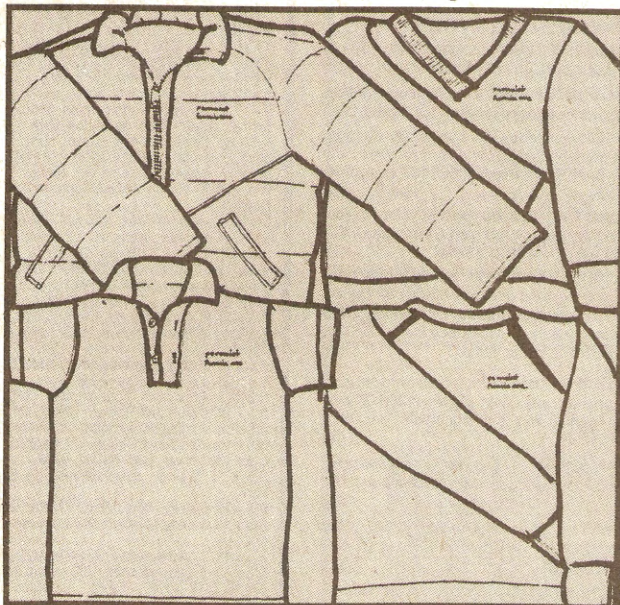


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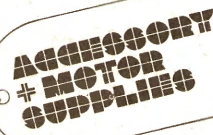
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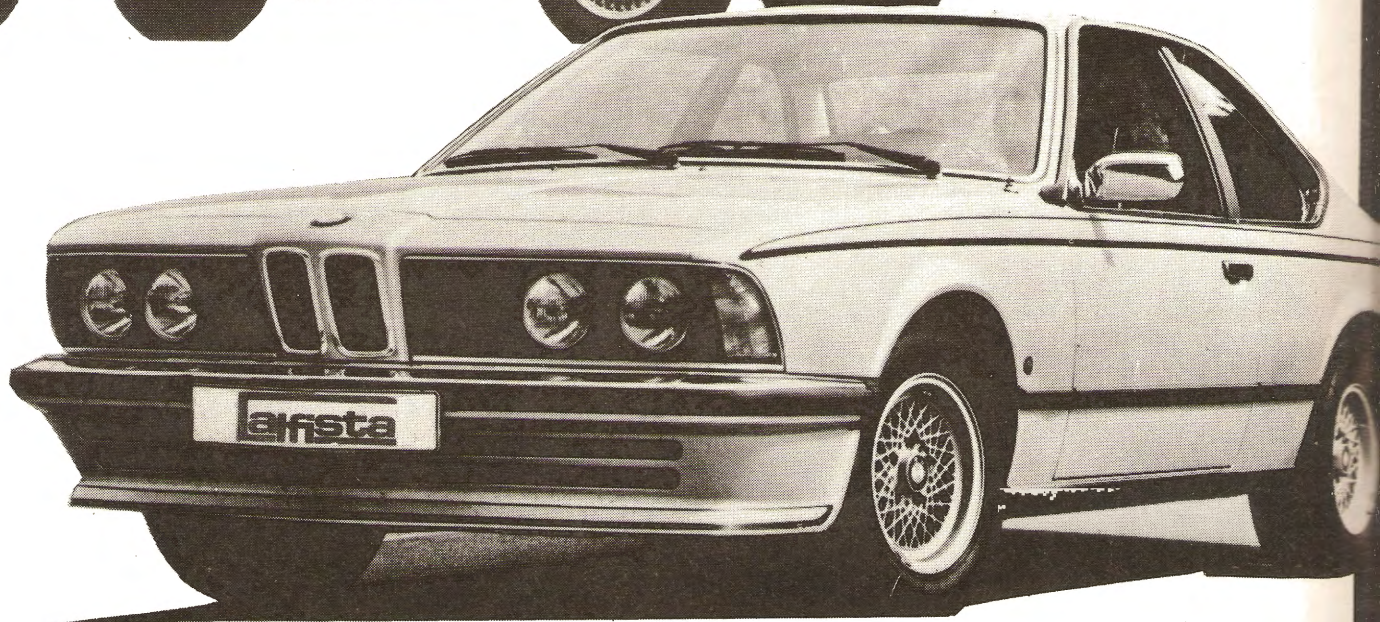
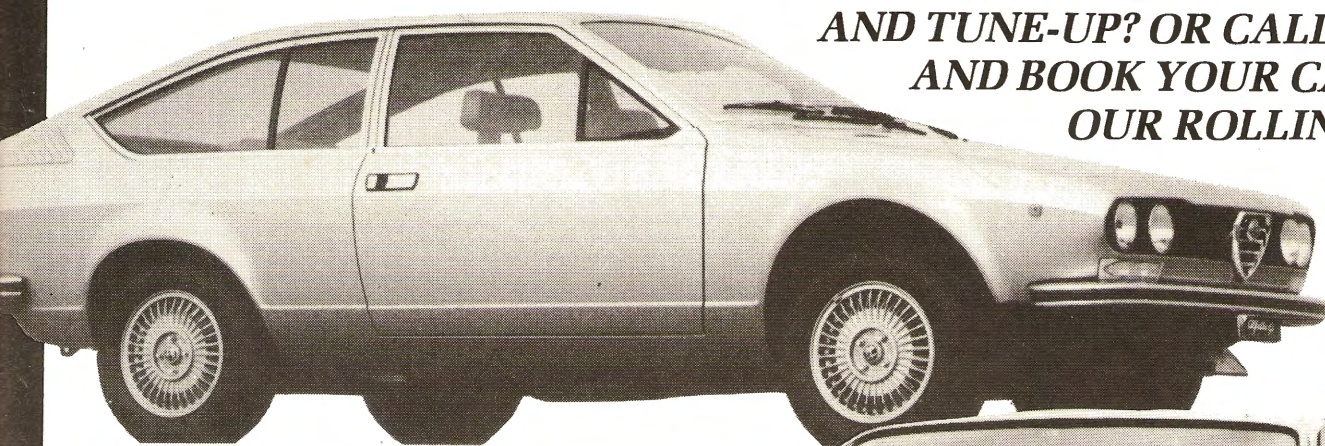
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“ The cornering potential of the Alfista-developed 323i is a spectacular improvement, the car being beautifully predictable with a touch of understeer on turning in to a tight corner and a balanced transition to slight oversteer on the exit.

” (AUTOSPORT April 29th)

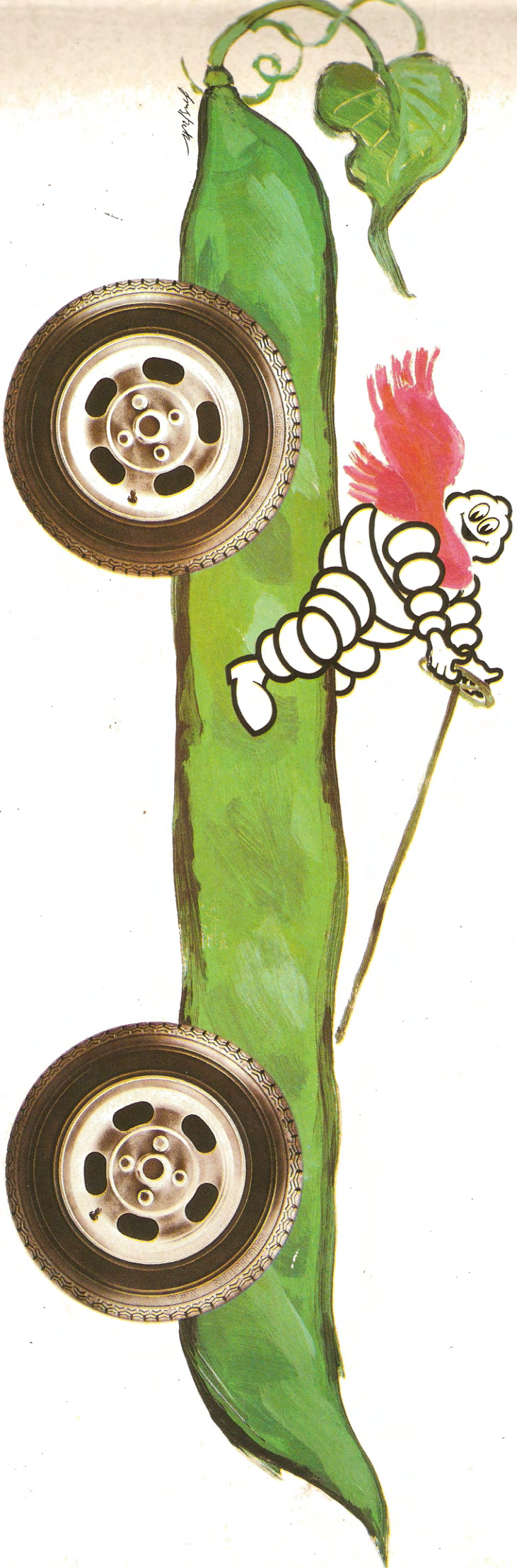
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