



# In like a lion, out like a lamb

March Engineering did not even exist at the beginning of 1969, but less than a year later it was making Formula One cars for five drivers in the first race of the 1970 season. Amazingly its cars took the first two places on the grid at their first Grand Prix.

By David Tremayne



Bearing the distinctive colours of Colin Crabbe's Antique Automobiles, Ronnie Peterson rounds La Source at Spa in his March 701.

## HISTORIC CHASSIS MARCH 701

**I**t was a real contradiction," Sir Jackie Stewart muses of the March 701. "It was actually quite fast, but one of the most unattractive cars to look at, I always thought. It was probably the most basic form of racing car you could ever have. But on the other hand, when you consider in its first Grand Prix it was first and second on the grid..."

When March Engineering burst onto the motorsport scene in 1969, entering its own Formula Three car for the much-rated Swede Ronnie Peterson, it made a big impression. But that was only the start. Jaws dropped among the press when it was announced that besides making customer cars for Formula Three, Formula Two and Formula Ford, March would also be moving straight into F1.

March was an acronym for the names of the company's founders, and therein lay the strong foundation that made such a dramatic gameplan feasible.

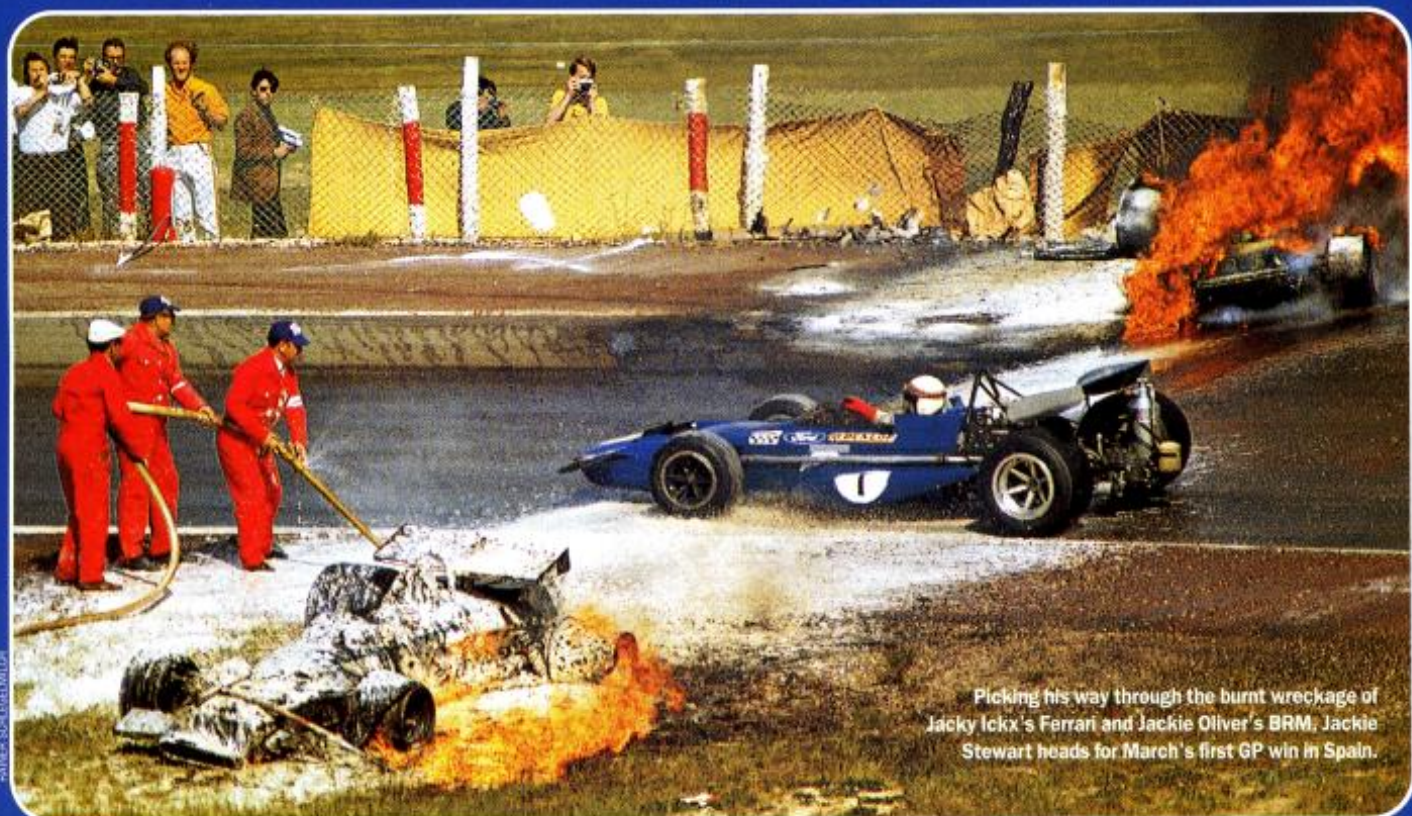
The 'M' was for Max Mosley, former Clubmans and Formula Two driver cum lawyer, who would play a significant role in the sport's destiny 20 years down the road. 'AR' was for Alan Rees, a capable Formula Two racer who had been Jochen Rindt's team-mate in the Brabham team run by Roy Winkelmann. 'C' was for Graham Coaker, the quiet man of the bunch, who knew manufacturing inside out and would keep the company's feet on terra firma as he controlled the enthusiastic excesses of



Four men and a March (l-r): Robin Herd, Alan Rees, Graham Coaker and Max Mosley pose with the first 701.

Engineering get its disparate racing-car production programmes off the deck, it made the Formula One campaign fly. But it was no cakewalk.

Herd remembers: "Max just told me one day, 'We're doing Formula One. We have the money.' Actually, we didn't really, but that's another story! He told me that I had 10 weeks to get two cars designed and built



Picking his way through the burnt wreckage of Jacky Ickx's Ferrari and Jackie Oliver's BRM, Jackie Stewart heads for March's first GP win in Spain.

Mosley and the final director Robin Herd, who lent the 'H' to the company name. Herd was a highly respected designer who had produced successful CanAm and Formula One cars for Bruce McLaren. And also a dog called the Cosworth 4WD, which never even made it to a race.

Despite this line-up, however, the press was understandably sceptical. Anyone even suggesting such a scheme today would never get it off the ground. But even back in 1970 scepticism was just as prevalent, to the point where March was deemed to stand for Much Advertised Racing Car Hoax. But Mosley, Herd & Co were deadly serious. Not only did March

ready for a demonstration run to the world's press at Silverstone." Herd had his back against the wall throughout the incredibly short gestation period for the company's first Formula One contender, the 701. "I lost a stone and a half," he recalls. "But we had some fabulous people working with us: Pete Kerr, Beaky Simms, fabricators such as Roger Silman and John Thompson, all people who went on to great things in the sport. We had an empty 3,000 sq. ft shed, no money and a phone. With help from John Clarke, I drew most of the car at home." The car was designated 701 after the year and the formula.

## MARCH 701 HISTORIC CHASSIS

The 701 was rudimentary because that's all there was time for. It had a simple aluminium bathtub monocoque chassis, with outboard coil spring/damper suspension front and rear. Power came from the Cosworth DFV V8 mated to a Hewland gearbox. It was deliberately simple, and the only major change to the specification came partway through the year when a new rear suspension with inboard brakes helped to improve its traction.

It was also a strong car. "Shit Maria, we cut some corners with that car!" Herd chuckles. "But I remember when we did the deal with Ken Tyrrell at the Excelsior Hotel down near Heathrow. 'Build it safe,' he said. And we did."

Despite March's complete lack of Formula One experience, there was no shortage of drivers. Mosley created March's own two-car works team simply to raise cash. The works team had American STP oil additive backing and plumped for the perennially unlucky New Zealander Chris Amon and Jo Siffert, the Marlboro-funded Swiss who had made Rob Walker's Lotus fly in the past. Siffert was effectively a rent-a-driver bringing money.

As part of the STP deal, Mario Andretti would drive a limited season in a separately-entered car under the STP aegis for the Granatelli brothers, Vince and Andy (who owned STP). With the American's experience they probably did more development work on their car than anyone else, but it could still not disguise its inherent weaknesses. It differed from the works cars by being painted a more luminous shade of red.

Then there would be the two Tyrrell-entered cars for Jackie Stewart and Frenchman Johnny Servoz-Gavin. From the Monaco Grand Prix, a sixth car took to the grid. March's own protégé, Ronnie Peterson, would drive a works-assisted car for Colin Crabbe's Antique Automobiles team.

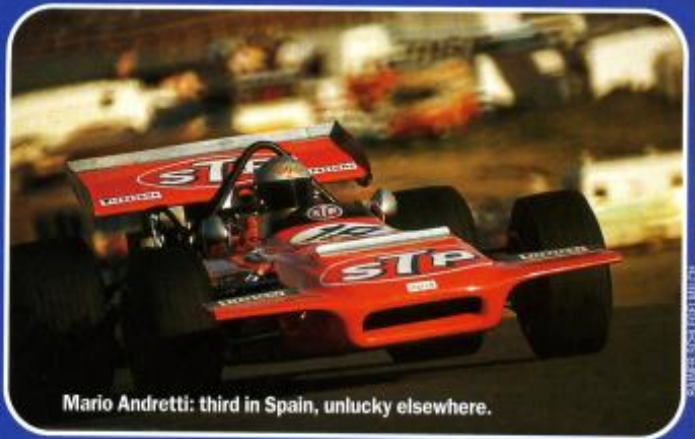
Coming off the back of a terrible season with Ferrari, and despairing of the new flat-12 ever being reliable after it broke repeatedly on him in testing, Amon was desperate to drive a Cosworth-engined British kit-car again. "The people I considered my main rivals – Stewart and Rindt – were winning with the Cosworth DFV," Amon recalled, "and I thought it would be best to compete on equal terms, so it was a combination of both things, plus the faith I had at that time in Robin Herd, whom I'd known well in my McLaren days." Unfortunately he chose the wrong one and that ultimately put him off the genre.

There wasn't much of a relationship between Amon and Mosley, however. The highly talented New Zealander believed all season that running

customer cars was a mistake, and was disappointed with the level of support he felt that he got. Three years later he almost went back to March, only to hear a radio announcement that he had been sacked. Relations between him and Mosley never got any better to this day.

Somehow March made its 10-week deadline and the two cars ran at Silverstone as promised. "It was a cold but sunny day and fortunately both cars worked okay," Herd relates. German writer Achim Schlang remembers that Mosley was there looking suave and elegant in a dark suit, under which he'd had the foresight to wear the Nomex underwear from his racing days.

After the disaster of BRM's overweight and underpowered H16 in 1966 and '67, Stewart had enjoyed two wonderful years with Ford-powered



Mario Andretti: third in Spain, unlucky elsewhere.

SILVERSTONE/REUTERS

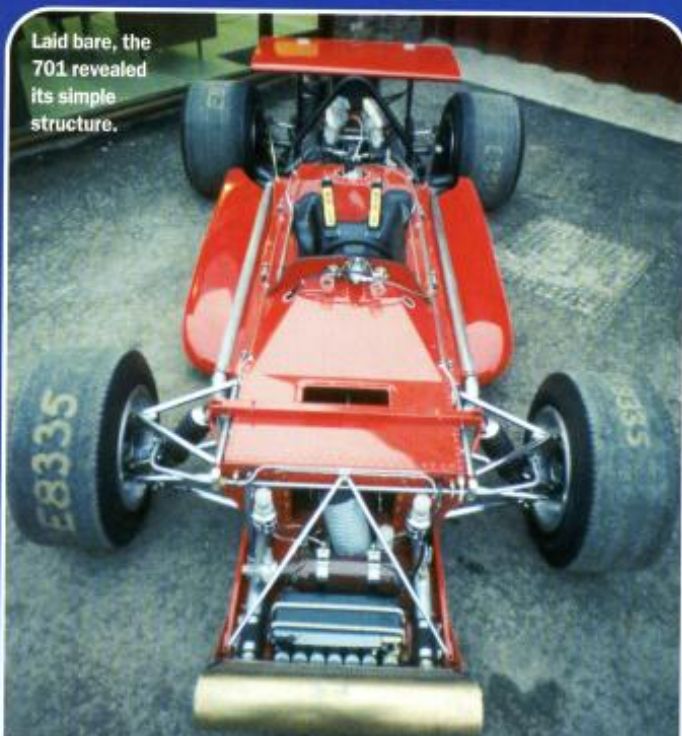
Matras, losing the title narrowly in 1968 and winning it conclusively in '69. But now Matra was allied with Chrysler-Simeca, which meant a choice between the Matra chassis or the Ford engine. Stewart and Tyrrell plumped for the latter, in the March, but the moment the Scot drove the 701 he knew it would be more BRM than Matra in terms of overall competitiveness. Even then, he suspected that the glory days were about to be put on hold again. But for all that, the Grand Prix car that had been built in 10 weeks was quick.

"I knew it was an interim thing," Stewart admits. "I knew I would have something else eventually. I didn't know what it was gonna be, but I knew I would get something. But right then the March was the only thing we had."

By the time the first Grand Prix of the season came round, at Kyalami in March, Herd and Stewart had been testing a 701 there for a month. "We were recalling some of the stories only the other day," Herd said, "and were both reduced to tears of laughter. And that was nothing to do with our on-track activities."

The world might have been sceptical, but March made a big impression as Stewart (on Dunlops) took pole position and Amon (on Firestones) matched the time. "Because of Max's innate modesty everyone loathed us right from the start," Herd recalls. "But we were quick at that first race, and frankly Jackie would have won it quite easily if his tyres hadn't gone off partway through. As for Chris, there were such bad feelings between Jochen and Max that it was inevitable there would be some sort of coming together between Jochen and Chris. It happened even before the first corner, I seem to recall."

If the 701 was the Plain Jane of a year notable for some striking-looking machinery, it was no trip to Paris for the man at the wheel, either. Stewart recalls: "It was always what I could call ugly to drive. It was a car that you had to bully. It wasn't a car that you finessed, a car that you communicated with in a sort of gentle and progressive fashion." I watched Stewart ▶



Laid bare, the 701 revealed its simple structure.

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wrestle the car to a fortuitous victory in the Race of Champions at Brands Hatch that year, jouncing and bouncing over the bumps and undulations of the Kentish circuit that upset its delicate sensitivities. He wasn't exaggerating.

"Brands Hatch was probably its worst place," the Scot confirmed. "It was a track where very few cars rode well. The March was no exception. It was a very unusual circuit, even a Matra didn't feel good there. The March was a bucking bronco. And if you bullied it into doing things you actually went quite quickly, but it was a real job to keep it up for the whole race without making little mistakes. And Brands Hatch was the epitome of that."

It was Amon's turn at the other early non-championship race, the Daily Express International Trophy at Silverstone. There he took pole in his Firestone-shod car and sped to an easy win in the first heat. In the second, which Stewart won for Dunlop, Chris set fastest lap and stayed close enough to win overall by a comfortable 10 seconds.

Then came Spain. Brabham was faster, but unlucky. Rindt had the new Lotus 72, but it was troubled. Stewart won a race of attrition, with Andretti third and team-mate Johnny Servoz-Gavin fifth. The Much Advertised Racing Car Hoax had now won three of its first four races, one of them a full-blown Grand Prix. It was a staggering achievement.

The shrewd and far-sighted Tyrrell had already realised, however, that he would need to make his own car if his team was to survive, and laid secret plans accordingly. "Even when we won in Spain we had already accepted that fact," Stewart reveals.

He and Amon also put their cars on the front row at Monaco. "That was slightly different, that's a graunchy race track, so it leant itself to that type of thing with the March," Stewart recalls. He led for the first 27 laps before making a pitstop for a new spark box, and though he resumed at the tail of the field his engine broke after 57 laps. Amon chased him for the first 21 laps before being overtaken by Brabham, and seemed set for an easy second place after Stewart's problem only for his rear suspension to lose a bolt three laps after the Scot had retired.

Spa was Amon's nightmare. Stewart took a dominant pole, with Amon sandwiching Rindt on the front row. But Stewart's engine blew again and the New Zealander instead had to beat Pedro Rodriguez's resurgent BRM.

"I saw this white thing just coming like a rocket behind us, after I'd led the first lap and then retaken the lead from Stewart on the third," Amon remembers. "I couldn't figure out who it was at first, then I saw it was Rodriguez."

Amon deliberately sat right behind the 12-cylinder car, knowing that it had to break. BRM had not won a GP since Monaco 1966, after all. "I even tried taking the Masta Kink flat in the March," Chris added. "I did it once, then never tried it again. It was scary, right on the edge."

At the flag the BRM was still running and still in front. Amon finished 1.1secs behind with a new lap record in his pocket, but still no maiden GP

victory. Siffert was a distant seventh, just another statistic in a season that never really gelled.

Stewart was a distant second at Zandvoort, beaten hands-down now that Rindt had the new Lotus working properly, and that race really marked the writing on the wall for March. Herd, however, had already begun working on 701's replacement, the 711, on the plane home from Jarama. The Lotus 72 and the Ferrari 312B, both more sophisticated and therefore faster,

were beginning to hit their stride. In France Rindt won again, this time with Amon a gallant second again, both benefiting after quicker rivals had dropped out. Amon was the best March again at Brands Hatch, struggling home a lowly fifth. He had qualified only 17th after a disastrous practice, but though Andretti starred with ninth-fastest practice time only two-tenths off Stewart, neither made the finish.

Apart from a brief spurt at Monaco, Siffert's one moment in the sun came when he qualified fourth at

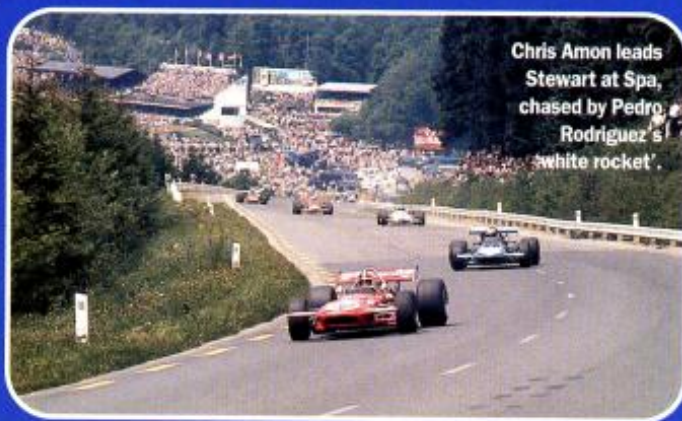
Hockenheim, with Amon sixth and Stewart seventh. But again none of them finished. The March challenge was almost spent. "It kept jumping out of gear, because the chassis was flexing," Stewart noted of that German race. "I remember that I was at the airport before the race was finished, and found out there that Jochen had won. But I had some hard races in the car. Some really good, aggressive races." He pushed the Ferraris briefly in Austria before a fuel line ruptured after seven laps, and Amon's sixth-fastest practice promise evaporated with damper problems.

The day after the Austrian race Ken Tyrrell unveiled his surprise new Tyrrell, scrawling further graffiti on Messrs Herd and Mosley's wall, but the Scot screwed out a brave final performance in the 701 in tragic circumstances when he took second place to Regazzoni at Monza after Rindt had been killed the previous day.

Team-mate François Cevert, who had replaced Servoz-Gavin from Zandvoort, scored his first championship point with sixth place. Cevert and Amon then had a great scrap in Canada, the New Zealander finishing third but the Frenchman dropping back when a damper failed.

It's interesting that far from being a handful for rookie drivers such as Peterson or Cevert, both of whom made the jump to the big league in 1970, Stewart believed the 701 was actually quite good for them. "A young driver bullies a racing car, so it wasn't such a handicap. But as you developed it was difficult to set up over the others. I can't honestly remember how responsive the car was to changes, but I can tell you that I don't have happy recollections of it. It was a typical kit car."

Theoretically, March could have won the constructors' world championship in 1970. Going into the US Grand Prix at Watkins Glen, Lotus still led with 50 points but March and Ferrari were equal on 43. Had Amon not suffered a puncture on the 48th lap when he was lying fourth, he might have won as Stewart, Ickx and Rodriguez all subsequently hit trouble. Instead, victory went to Lotus rookie Emerson Fittipaldi, thus sealing the titles for the departed Rindt and for Lotus.



Chris Amon leads Stewart at Spa, chased by Pedro Rodriguez's 'white rocket'.



Stewart and his 'bucking bronco', British GP, 1970.

## HISTORIC CHASSIS MARCH 701

Herd remembers to this day what Colin Chapman said to him afterwards. "He told me that the only reason he did the race with Lotus was 'to stop you bastards winning the title in your first season'. He said it with a smile on his face and I thought that was praise indeed from the world's best racing car designer."

Amon finished fourth in the last race of the season, in Mexico, and that brought the March 701's topline career to an end.

"One of the problems with the March was that if you ran over a pebble, you felt it," Stewart explains. "That's why it was difficult to drive and why you had to bully it. It was upset. It was like talking to somebody who gets upset if you say the wrong word. That was what the March was. The Tyrrell was a mature vehicle, with the personality of Derek and Ken."

What did that say for the March, then, and the character of Robin Herd?

Stewart chuckles. "If you put Robin and Max and a few other people in there... It sounds silly to say that, but you could always discuss things with the Tyrrell, but you couldn't discuss it with the March. There wasn't a relationship."

Herd admits he got the weight distribution wrong on the 701. "The whole thing was done in one hell of a hurry, but it was a very quick car on some tracks. It just didn't like slow corners or bumps. I can tell you now that the centre of gravity was too far forward. The front tyres weren't man enough to handle that so you got massive understeer, because inherently it just didn't want to change direction. That in turn took weight off the rear tyres so there was no traction and you got oversteer coming out. I got the polar moment of inertia wrong. It was way too high, with the radiator stuck out the front and the oil tank stuck out the back, and it was a short wheelbase to begin with. That all made the car slow to turn in and then slow to change direction again once it finally had. And over bumps the wheelbase was also too short to control all the energy that needed to be dissipated."

The 701 did break some new ground, however, besides its high-mounted nose wings. For some longer races, such as the US Grand Prix at Watkins Glen, it needed extra fuel capacity and this was provided with add-on tanks either side of the tub. The bodywork was manufactured by Specialised Mouldings, and SM's Peter Wright (later of Lotus and FIA fame) worked with Herd, and they came up with the idea of covering the pannier tanks with aerofoil-shaped covers.

"The idea was to generate a bit more downforce," Herd explains, "and it was quite effective. There was a modest amount. It would have been better if we had added endplates, but in any case the airflow through the front suspension was messy and we never had the resources to explore that sufficiently."

Looking back, Herd has fond memories of his creation. "I don't like the couple of mistakes I made with its weight distribution, and in how difficult it was to drive, but I will never forget that car. And Jackie's average grid position in 1970 with the 701 was actually better than it was with the Matra MS80 in 1969. I enjoyed all the effort that went into the car, and it was pretty reliable. It was a bit of a joke us running an F1 team, though. We were younger than the drivers!"

March did that season on £20,000. The figure graphically portrays the difference between then and now, as does the tale of a rookie company building a winning car in its first season. In the end, nothing could live up to the pre-event hype, but the March 701 won its second Grand Prix and was the third-best racing car of 1970. That was no mean feat when you consider its gestation period. But the underlying saga, the truth of how close to the wind the company sailed in that bold, brash first season, is best illustrated by the story of the telex that Herd sent Mosley from the February test in South Africa, while he was impatiently awaiting shipment of parts so that work could carry on.

"I sent Max the message that non-arrival of a radiator was screwing the issue," Herd says. "Then Max telexed me back with the message: 'Unless you get on with the test there will be no issue to screw...'"

### 701/1

1970

March Engineering

Raced by Chris Amon at Kyalami, Jarama, Monte Carlo (also practised by Jo Siffert), Spa-Francorchamps (new chassis after Monte Carlo accident), Zandvoort, Clermont-Ferrand, Brands Hatch, Hockenheim, Osterreichring, Monza, St Jovite, Watkins Glen and Mexico City.

1971

Raced by Derek Bell in Argentina (non-championship)

### 701/2

Tyrrell Racing Organisation

Raced by Jackie Stewart at Kyalami, Jarama (first place), Monte Carlo, Spa-Francorchamps and Zandvoort. Practised by Stewart at Clermont-Ferrand, Brands Hatch and Hockenheim.

### 701/3

1970

STP Corporation

Raced by Mario Andretti at Kyalami, Jarama, Brands Hatch, Hockenheim and Osterreichring.

1971

Raced by John Cannon in Ontario (non-championship).

### 01/4

Tyrrell Racing Organisation

Raced by Johnny Servoz-Gavin at Kyalami, practised by Stewart and Servoz-Gavin in Monte Carlo, practised by Stewart at Zandvoort, St Jovite and Watkins Glen. Raced by Stewart at Clermont-Ferrand, Brands Hatch, Hockenheim, Osterreichring and Monza.

### 701/5

1970

March Engineering

Raced by Jo Siffert at Kyalami, Jarama, Monte Carlo, Spa-Francorchamps, Zandvoort, Clermont-Ferrand, Brands Hatch (new chassis after damage at Clermont-Ferrand), Hockenheim, Osterreichring, Monza, St Jovite, Watkins Glen and Mexico City.

1971

Raced by Jo Siffert in Argentina (non-championship). Raced by

Xavier Perrot at Hockenheim (non-championship). Raced by François Mazet at Le Castellet.

### 701/6

1970

March Engineering

Practised by Chris Amon at Monte Carlo and Clermont-Ferrand.

1971

Raced by Henri Pescarolo at Argentina (non-championship) and Kyalami. Raced by Jean Max in Le Castellet. Raced by Ray Allen at Brands Hatch and Hockenheim (both non-championship). Raced by Derek Bell at Ontario (non-championship). Raced by Tony Trimmer at Oulton Park (non-championship).

### 701/7

Tyrrell Racing Organisation

Raced by Servoz-Gavin at Jarama, Monte Carlo, practised by Stewart in Spa-Francorchamps, raced by François Cevert at Zandvoort, Clermont-Ferrand, Brands Hatch, Hockenheim, Osterreichring, Monza, St Jovite, Watkins Glen and Mexico City.

### 701/8

Antique Automobiles

Raced by Ronnie Peterson at Monte Carlo, Spa-Francorchamps, Zandvoort, Clermont-Ferrand, Brands Hatch, Hockenheim, Monza, St Jovite and Watkins Glen.

### 701/9

John Love

1971

Raced by Love in Kyalami.

### 701/10

1970

Hubert Hahne

Driven by Hahne at Hockenheim (DNS).

1971

Raced by Jean-Pierre Jarier at Oulton Park (non-championship) and Monza.

### 701/11

1971

Raced by Mike Beuttler at Brands Hatch, Silverstone, Hockenheim and Oulton Park (all non-championship).