

## McLaren M23, 1974

### Introduction and history

If the McLaren M19C was a modest gem amongst the McLaren Crown Jewels (SMI August 2005), their M23 was the equivalent of the Kohinoor State Diamond. This car, raced over five seasons (1973-1977), was immediately competitive, won sixteen Grands Prix, won the Constructors' Championship in 1974 and enabled two drivers to win the World Championship in 1974 and 1976, Emerson Fittipaldi and James Hunt respectively. These were the Niki Lauda years and in 1975, Emerson Fittipaldi in his M23 was runner-up in the Drivers' Championship, following on from his 1974 title.

The M23 was quick out the box, winning three Grands Prix in its first season (1973) when driven by New Zealander Denny Hulme (Swedish Grand Prix) and American Peter Revson (British and Canadian Grands Prix). This Yardley sponsored car is most famous perhaps, for various mishaps and oddities, such as the controversial coming-together of Jody Scheckter's M23 and the Lotus 72D of the reigning World Champion Emerson Fittipaldi in the 1973 French Grand Prix. Then there was the 'Destruction Derby' at the end of lap one at Silverstone that year when wild boy Jody allowed his unscrubbed left rear tyre to drift wide of the tarmac on the outside of Woodcote. Jody tried to catch the oversteering car and thought it possible; but no, it went on round and the trajectory shot him across the path of the oncoming traffic into the pitwall. Following the head-on impact with the pitwall, the car deflected back into the path of cars further down the grid. Jody still sheltering low in the cockpit, ventured a look over the cockpit edge when all had gone momentarily quiet, but seeing another accident about to happen, drew himself down into the monocoque for a second time (personal communication JS). In all, nine cars were retired on the spot including the entire Surtees team and amazingly, only one driver was injured with a broken ankle. At the end of the year, Revson won in Canada after it rained and the Safety Car picked up the wrong lead car, thoroughly confusing the timekeepers. The win was almost awarded to Fittipaldi, Emerson graciously accepting the final verdict when alongside Revson and Jackie Oliver (Shadow) on the podium.

Into the close-season, Emerson worked feverishly testing the updated M23, now in Texaco-Marlboro colours. Emerson having brought Marlboro money to McLaren declared himself extremely confident with the car at the start of 1974 and it showed. In the first Grand Prix (Argentina), Emerson qualified well, had a torrid race, finishing tenth, his team mate Hulme winning first time out. At Interlagos in Brazil, Emerson took pole and won. Thereafter, the season was one of typical Fittipaldi consistency, fighting the ever competitive Ferrari 312B3 of the inexperienced Niki Lauda. Emerson won in Belgium and at Mosport Park in Canada, securing the Championship with a canny drive to fourth place at Watkins Glen in the U.S. in a three-way title chase, also involving Clay Regazzoni (Ferrari) and Jody Scheckter (Tyrrell).

McLaren worked tirelessly on the car bringing out new developments at almost every venue. The car was visually transformed throughout the season, losing its backward leaning rear wing pillar

by the South African Grand Prix in late March, tried a winkle-picker narrow nose cone at Jarama and Monaco where Emerson drove to fifth, fighting 'flu. Returning to the usual nose cone for Belgium onwards, the McLaren mechanics fitted an ultra-low rear wing in practice only and yet another variation on upper rear radius rod pick-up points. In France, the McLarens sported the large airbox as depicted in this model and at Brands Hatch there were less visible changes to both front and rear suspension geometry. For the last three Grands Prix, the less familiar tall airbox with narrow aperture was used, the cars otherwise retaining all the modifications previously mentioned. At Watkins Glen, the team tried a unique radio system, which failed to impress at this early stage in mobile communications.

The model shown here is Tamiya's Texaco-Marlboro M23 in 1/12 scale, suitably modified to represent the mid-season car, perhaps at Brands Hatch or at the Osterreichring in Austria. In order to achieve this, significant changes to the base model included a revised rear wing and airbox, new wingmirrors, a radical overhaul of the decals, and superdetailing the whole car in keeping with that learnt during privileged access to M23/5 during restoration. The kit as supplied, represents the car when raced at the start of the season in Argentina and Brazil. Although no longer available, this model turns up fairly regularly on e-Bay.

Sadly, I do not own this particular model, for it was originally given to one of Emerson's mechanics at the 1976 Japanese Grand Prix by a Tamiya representative in recognition of World Titles won. The mechanic in question (Kerry Adams) made a valiant effort to paint and build the model, quickly realising his talents lay with the full size car and wisely storing the disappointing effort in his garage. Years later, Kerry asked me restore the model when he saw my 1976 McLaren M23, the results awaiting your verdict. Kerry appears on page 66 of McLaren Formula One (Rainer Schlegelmilch), walking behind the McLaren M23 of Jochen Mass at Monaco in 1975.

The McLaren M23 along with the Lotus 72D are amongst my very favourite Grand Prix cars for they capture a point in history when great designers expressed their artistic and engineering flair in many ways, achieving the same aim, via alternative routes. Studying the grids of the mid seventies, there's all manner of design innovations and artistic variation, all lovingly crafted in aluminium and fibreglass. Carbon Fibre was being dabbled with (not all too successfully considering the tragic events of the 1975 Spanish Grand Prix) and the era of various plastic composites was still far off.

### **Approach to the model**

Utilizing Kerry's already started Texaco-Marlboro M23, I made use of the airbox and rear wing pillar from Tamiya's 1974 Yardley McLaren M23 kit. Access to the real car during restoration yielded detailed structural detail and made sense of all the wiring and plumbing, bringing authenticity to the final presentation. It was clear from the start that the decals in the kit were far from ideal, in that years spent in the box, excessive heat had rendered them beyond straightforward

use. Much salvaging and careful restoration of the decals was necessary. Ultimately, many of the decals were simply incorrect, even for the original car intended (Argentina/Brazil 1974) and so the race number (five), rear wing endplate Marlboro and the cockpit Texaco-Marlboro decals had to be remade.

### **Monocoque and bodywork**

I decided that the cockpit and nosecone should appear to attach to the model as in the real car. Therefore, the various pins and screws/fittings with which the cockpit and nosecone were to be affixed were removed. The small attachment lugs on the fuel-tank top aspect of the monocoque were removed as were the small projections on the inside lower edge of the airbox. All the various remaining defects in the monocoque surface were filled and sanded, later to be primed and painted in the usual way with Halfords Acrylic Appliance Gloss White and Fiat Red Orange.

The forward monocoque closing panel was remade from plasticard and placed over that supplied in the kit. Robust nosecone fastener brackets were made (plasticard) and securely fitted to the closing panel with steel bulkhead behind, ready to receive the nosecone. The cut-outs for the Tamiya screws in the nosecone were filled and re-profiled for the later fitting of handmade pip-pin style fasteners. A large riveted grip with a free forward edge was made and placed ahead of the steering rack access hole. This would later secure the front inside edge of the cockpit-surround, the rear being rigidly attached to the forward edge of the tank-top by means of Dzus fasteners, the brackets for which were added to the basic kit.

The airbox was enhanced and made more realistic by removing moulded Dzus fasteners and allowing the airbox to sit inside two lateral aluminium channels on the edges of the fuel-tank top section of monocoque. From now it would be attached by a spring-clip at the rear on to the gearbox and a pip-pin fastener on the front, utilising the rollover bar beneath.

The other noticeable addition to the monocoque was the recognition of steel aspects of the various bulkheads and other steel components. These projected through the aluminium monocoque, or could be seen within the aluminium skin through natural openings. All these steel items, necessary for their strength and rigidity were vulnerable to moisture and rust and so were primed with a green aircraft type primer paint. In this model, they were selectively painted to indicate their presence.

At the front of the monocoque, the electrics system was super-detailed with battery and leads to the master switch and solenoid. From there, the electrical cables were routed through the car to the ignition system, the starter motor, rear light, dashboard and the fire extinguisher system. The brake and clutch mastercylinders were plumbed in the usual way to supply the front brakes and further hydraulic lines to the rear of the car serving the rear brakes and clutch mechanism. Larger front brake ducts were constructed from plasticard. The steering rack was completely replaced with one of my own making, having the appearance of the original. This involved utilising various diameters of aluminium tubing, Milliput and appropriate adhesives. The final product was

sprayed with primer and then Satin Black acrylic spray. The front wheels were steerable, though not connected to the steering column, which was replaced by a suitable length of aluminium tube.

### **Cockpit**

This area was super-detailed by careful attention to the gear lever, fire extinguisher and seat which was improved by an aftermarket seat-belt set. The dashboard was carefully replicated and the wiring at its rear was greatly enhanced over that originally indicated in the kit. All the various connectors were wired logically, including the oil pressure valve, which would light an orange lamp on the dashboard in the event of a significant fall in engine oil pressure.

### **Fuel-tank top**

This busy area behind the driver's head was faithfully represented having studied the real car and making sense of the routing of wires and cables from items in the area and those within the cockpit, passing en-route to the engine area. The roll over bar from the Yardley M23 was used, as this was suitable for the narrower larger airbox. This roll-over bar was firmly fixed and the water header tank attached to a bracket on the right rear stay. The water header tank was then plumbed into the cylinder-head water pipes and had its overflow pipe fitted. The rear of the monocoque at this point was carefully super-detailed to replicate that of the real car before the engine was attached.

### **Engine and gearbox, rear suspension**

The Ford Cosworth DFV engine and Hewland gearbox were essentially built-up in the usual way, as per kit instructions. I accentuated some details where appropriate, for instance the rear light and starter motor wiring, rear brake plumbing and ignition system. The rear wing pylon attachment to the side plates, was improved by additional hand-grip rods, which would have been threaded and bolted at their far ends. This enabled more rapid removal and adjustment of rear wing height during testing/practice sessions and rarely the race itself. The oil pipe plumbing was improved by use of braided hose and white metal hose-ends.

### **Finishing touches**

I moulded some new rear-view mirrors in Milliput, adding mirror-glass. The wheels were improved by addition of valve stems and tyre bead studs. A vacform windscreen was affixed using fine wire and aftermarket rivets (Grandt Line) were used to replicate the screw covers used on the real car.

## Decals

In many ways, along with the paint work, the decals really make this car. Those supplied in the kit are mostly of the wrong size and incorrect for the mid and later season cars. Therefore, I spent time on the computer improving all aspects of these and adding extra decals omitted from the decal sheet. Having resized many of the decals, these were reprinted on white decal material, then hand-cut to replicate the originals which were signwritten by hand for each individual car. The pigments used on my decals were inevitably water soluble, so the decal was gently sprayed with Johnson's Clear acrylic floor varnish, then cut. The edges were repainted with Johnson's Clear to prevent ingress of water. Then only, could they be applied to the car in the usual way; perhaps labour intensive, but effective.

## Concluding thoughts

I have been blessed by access to Emerson's 1974 M23/5 which made all the difference to bring about a more convincing version of the mid-season car. The generosity of spirit of yesteryear's mechanics in allowing me this opportunity, has been greatly appreciated and their patience and enthusiasm provides continued inspiration.

This is a most popular and beautiful racing car model, which makes it an ideal subject to super-detail. Going the extra mile with the decals transforms the car, lifting it out of the obvious scale model look, giving one the impression that this could just be a genuine full size car, at least for a few seconds I hope. This satisfies my desire to own the next best thing! I trust this representation has inspired you and brought you pleasure too.