

From the rally legend to the
MINI Cooper S.
Mini – winning the Monte Carlo Rally
40 years ago.



Text

BMW AG





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1. Introduction.



It certainly was the sensation in the 1963/64 winter rally season: A small red David with a white roof proudly showed its tailpipe to all those ultra-powerful Goliaths, clinching overall victory in the Monte Carlo Rally. And in this "big bang", the tiny little car immediately became a legend: Originally conceived as an inexpensive and economical means of transport, the Mini had been transformed into the hot-blooded Mini Cooper now clearly standing out as the "small man's sports car". Wherever the Mini – either in standard trim, as the Cooper version, or in highly modified form – appeared at the start of a race, it was always good for a genuine surprise. Indeed, the Mini wrote many a headline in the world of rally racing, just like it made times more than difficult for the usual "strong guys" on race circuits the world over. The 1960s, therefore, were the decade of the Mini, far beyond official races and competitive events alone. For even when the Mini started to feel keen competition on closed circuit tracks, there was still no other car in the market able to offer the same kind of sporting performance for so little money, providing outstanding driving pleasure within such compact dimensions.

Forty years on nothing has changed: The features which once took the Mini Cooper to victory in that historic race to Monaco remain the basic ingredients of the MINI Cooper today. With its compact exterior dimensions, the new MINI Cooper simply whisks around corners, resting solidly on its wide track and long wheelbase. Indeed, this kind of driving behaviour clearly calls for sporting performance, the John Cooper Challenge Brand Trophy attracting an increasing number of motorsports aficionados particularly in Britain, the home country of the MINI. And like their fathers 40 years ago, many aspiring talents and up-and-coming racing drivers gain their first experience and bring home their first trophies at the wheel of a MINI.

In particular, however, every driver given the opportunity to take the wheel of a MINI will feel right away precisely why entering the Monte Carlo Rally would indeed be a wonderful experience. And nobody can express this feeling more appropriately than Rauno Aaltonen, the "Flying Finn": "Both generations of the Mini (or MINI !?) clearly stand out from all other cars in precisely the same way. They are extremely agile and follow the steering immediately. Back then the Mini was a Princess, beautiful and full of character. In the meantime the Princess has grown up, and the new MINI has become a Queen!"

2. 1964 Monte Carlo Rally: How the Mini Cooper became a legend.



The Rally promised to be more exciting than ever this year. And what had become increasingly evident in the years before then became a clear fact on 17 January 1964: The era of the amateurs was coming to an end, with more and more works teams now entering the Monte Carlo Rally. Starting out in Minsk, Glasgow, Paris, Frankfurt, Athens, Warsaw, Lisbon, and Monaco, the latter naturally also marking the finish line, the teams are really a colourful group. The ultra-powerful Ford Falcons with Greder/Delalande and Schlessner/Leguezec at the wheel are matched, at best, by the Mercedes-Benz 300 SE driven by Böhringer/Kaiser and Glemser/Braungart. But Trana/Lindstrom at the wheel of a Volvo 544 also expect to look good, just like Toivonen/Jarvi in their Volkswagen 1500. Citroën enters no less than four DS 19s, but in terms of sheer numbers still lags behind the British, BMC alone registering an astounding six ultra-quick and nimble Minis, with 24 more Minis being raced by private teams. Mini drivers Patrick Hopkirk and Henry Liddon set out on the Rally in the Russian city of Minsk together with another Mini team, whilst Rauno Aaltonen and Tony Ambrose start their trip to the south of France in Oslo. The three other Minis, one of them driven by Timo Mäkinen and Patrick Vanson, start the Rally in Paris, heading for their first interim destination in Reims.

Newer, stronger, faster: the Mini Cooper S.

Precisely this combination of teams in the armada of Minis promises to be really exciting: Last year Aaltonen and Hopkirk finished first and second in their class, the Flying Finn even clinching third place overall. And this year they are entering the race with a new and even more powerful car: The model they had raced before was a production Mini developing 56 bhp from 997 cc, and with top speed of 140 km/h or 87 mph. This year the Minis entering the race are the new Cooper S with a larger engine displacing 1,071 cc and developing maximum output of 70 bhp. Not only the higher top speed of 160 km/h or 99 mph promises to make the Mini more competitive, but also – and, indeed, above all – much faster acceleration to 100 km/h in 13 instead of 19 seconds.

The Rally starts out very well for the drivers in their ultra-compact but very roomy racing machines: The average speed of all cars on their 4,000-kilometre trip to Reims is 50 km/h or 31 mph, with only 277 cars reaching this first destination – all the works Minis among them. Then, in this famous French city, the race officials carefully make a note of the number plates on the

three red Minis with their white roofs destined to become a legend: 33 EJB driven by Paddy Hopkirk, LBL 6D with Rauno Aaltonen at the wheel, and AJB 44B piloted by Timo Mäkinen.

A promising start: Paddy Hopkirk finishes second.

The first leg of the Rally now comprising all teams is to Saint Claude, with a distance of 597 kilometres or 370 miles. After the 23-kilometre special trial between Saint Didier and Mont Main, the Ford Falcons with their mighty 4.7-litre 8-cylinder power units appear to confirm their leading role, Bo Ljungfeldt ranking No 1 in his muscle machine, but with Patrick "Paddy" Hopkirk only 16 seconds behind in his Mini Cooper S. No 3 is Eugen Böhringer in his Mercedes 300 SE, and Trana in a Volvo 544 is in fourth place. The second Mini Cooper with Timo Mäkinen at the wheel is No 5.

Hanging on there with full throttle.

Still – the nimble Minis do not have a very good chance of keeping these leading positions, since they are simply not built for very high speeds. And the next leg of the race from La Madelaine to Pelle Autiers near Gap is a 46-kilometre full throttle trial, which is reflected by the ranking at the end of the day: Ljungfeldt remains in the lead with his fast American Falcon, Trana is now in second place in his "humpback" Volvo. But the Minis put up a tremendous show all the same, Paddy Hopkirk dropping back only one place to No 3 in his Mini Cooper. Mercedes driver Eugen Böhringer is No 4, and Timo Mäkinen is able to hang on to fifth place.

Final decision in the "night of long knives".

Entering the decisive and most demanding trial, the teams use all their resources and special ploys to achieve the best possible result: "Ice scouts" drive the same route as late as possible prior to the start of the race in order to warn the drivers of critical spots. The tyre game is also a dominating factor, some teams relying on spikes, others on compounds. Super low-section tyres with asymmetric tread serve to provide optimum traction, some of the other tyres used are in semi-radial-ply design. And the first Dunlop low-section racing tyres also make their appearance this year.

Prior to the "night of long knives", Ljungfeldt's Goliath is 65 seconds ahead of the "Davids" in their Minis. But now Ljungfeldt's large engine is a disadvantage, since the rule in the Monte Carlo Rally is that drivers with larger engines have to drive faster to avoid penalty points. So Bo Ljungfeldt hurls his car through the serpentine up to Col de Turini at an altitude of 1,607 metres or 5,271 feet – but the weight of his Ford Falcon, the sheer size of the car and rear-wheel drive prove to be a disadvantage on deep snow. The small Mini Coopers, in turn, more than compensate their lack of power through their nimble handling in bends combined with front-wheel drive.

Reaching the finish line, Ljungfeldt is now only 17 seconds ahead of Hopkirk. And according to the handicap formula, the Irish driver is now in the lead in his Mini Cooper with 2,152.1 penalty points. No 2 is Saab driver Eric Carlsson with 2,183.2 points. Mäkinen has also moved up one place, 2,216 points putting him just 0.2 points ahead of Ljungfeldt.

Thirty points for victory: Paddy Hopkirk wins the Monte Carlo Rally.

The only chance the Ford Falcon driver now has for victory is to win the final circuit race on the Grand Prix city track in Monaco included for the last time this year in the Monte Carlo Rally. But this remains only a theoretical option: Bo Ljungfeldt pushes the Falcon round the circuit as fast as he can, with only Schlesser being able to keep up. But Paddy Hopkirk doesn't give the Mini Cooper a rest, either, finishing only half a minute behind Ljungfeldt and thus clinching victory in the 1964 Monte Carlo Rally. So at the end of the race Paddy Hopkirk is the winner with 2,536.2 points, Bo Ljungfeldt finishes second with 2,566.7 points, and Carlsson is third with 2,573.7 points. To round off the Mini Coopers' triumphant appearance, Mäkinen is fourth with 2,593.8 and Rauno Aaltonen 6th with 2,619.5 points. The works strategy has therefore proven successful in every respect, Paddy Hopkirk and his two Scandinavian colleagues forming a joint team for the first time. At the end of the Rally the spectacular and eye-catching style of all three drivers shows everybody that these really must be the Three Musketeers.

3. A small car coming out big: Mini and the Monte Carlo Rally.



The Mini was simply perfect for rally racing right from the start, six works cars making their appearance in the 1960 Monte Carlo Rally just six months after the Mini had made its debut in the market. Private drivers entered six more of these brand-new, small but mighty performers. Back then, however, the newcomer was not yet particularly competitive, Riley/Jones finishing 23rd in the fastest Mini. A year later the small cars from Britain were not successful, either, none of the three works cars entered in the race reaching the finish line.

All this changed dramatically in 1962, when Rauno Aaltonen, the Flying Finn, entered the spectacular Rally for the first time at the wheel of a Mini Cooper. Unfortunately, this very nearly might have been his last Rally, too, with his car rolling over in an accident, landing on the roof and catching fire. Aaltonen just had a few seconds to get out before his Mini became a complete victim of the flames.

Only two other works Minis remained in the race, finishing the Rally as No 26 and 77. But two more names also appeared in the list of entrants, destined to hit the headlines in the not too distant future together with the MINI: This was the year in which Timo Mäkinen entered Monte Carlo the first time in a Mini Cooper, albeit as a private driver. And the Sunbeam Rapier finishing third overall was driven by an Irishman called Patrick Hopkirk.

1963: first class win for the Mini Cooper.

Just a year later Paddy Hopkirk was back, this time at the wheel of a Mini Cooper, with four works cars entering the famous Rally in 1963. The most successful Mini driver was Rauno Aaltonen clinching victory in his class and finishing third overall. Paddy Hopkirk followed as second in his segment and finished sixth in the overall rating, the two other Mini Coopers raced by the works team finishing 28th and 44th.

In 1965 Timo Mäkinen from Finland continued the Mini Cooper's story of success together with co-driver Paul Easter, bringing home a supreme victory in the Monte Carlo Rally as the only driver in the entire field to cover thousands of kilometres without one single penalty point despite very difficult snow conditions in the French Alps. This was Mäkinen's first outing in a Mini Cooper with the new 1,275-cc power unit destined to become a synonym for this model. Mäkinen himself had set out from Stockholm together with

Paddy Hopkirk, two other cars coming from Minsk and one each from Paris and Athens. Hopkirk finished the Rally in 26th place, closely followed by the two brothers Eric and Donald Morley forming another works team.

It was also in 1965 that BMC gave up an old tradition for the first time, the works Mini Coopers boasting tartan-red paintwork with a white roof right from the start. The only exception was the Swedish team Kallström/ Haakansson driving a green rally car with a white roof.

1965: only 35 out 237 cars reach the finish line – among them three Mini Cooper S's.

Leaving aside the 1952 Monte Carlo Rally when there was nothing but snow and ice in the Alpes Maritimes, weather conditions in 1965 were acknowledged as the most difficult ever. And instead of the final circuit race on the Formula 1 track to Monaco, the teams now had to go back to the mountains a second time, the rally cars being required to cover 610 kilometres or 378 miles in a second tormenting night drive from Saint Claude to Monte Carlo, again racing through the Alpes Maritimes under the toughest conditions. Visibility in dense snowfall was almost zero and the drivers were dazzled by their halogen headlights reflected by the snow and ice, so that ultimately only 35 out of the original 237 teams saw the chequered flag.

Facing this kind of challenge, Mäkinen put up an amazing performance, achieving the fastest time in three out of five special trials on the last, ultra-difficult legs of the race. Entering the last night eight minutes in the lead, Mäkinen won no less than five out of six special trials in this final part of the Monte Carlo Rally.

A dicey decision in 1966: the winner – but disqualified.

In 1966 the Mini armada went for their hat trick, the four Cooper teams being acknowledged as the favourites in the race and receiving lots of public interest. From the start, the teams lived up to this commitment, Mäkinen, Aaltonen and Hopkirk leaving all the others far behind and finishing first, second and third at the end of the Rally. But then came one of the most questionable decisions in the history of the Monte Carlo Rally, the race commissioners determining in an 8-hour technical inspection after the event that the four additional headlights mounted on the radiator grille of the Mini Coopers failed to comply with French homologation rules. And proceeding from this highly debatable point, the jury disqualified the first three cars. With the Lotus Cortina finishing fourth being disqualified for the same reason, Citroën driver Toivonen finally moved up to the top of the podium as the winner.

Notwithstanding this bitter experience, the Mini Coopers were back in the 1967 Monte Carlo Rally, the Three Musketeers Aaltonen, Hopkirk and Mäkinen being joined by Simo Lampinen and Tony Fall. Entering the event with starter number 177, Rauno Aaltonen finally ended up in first place,

12 seconds faster than the Lancia finishing second. All other Mini Coopers likewise saw the chequered flag, Hopkirk finishing 6th, Fall 10th, Lampinen 15th, and Mäkinen 41st.

1968 was the last time the works Mini armada set out for Monaco, Aaltonen finishing third in his Cooper S, Tony Fall coming in fourth and Hopkirk finishing fifth, while Mäkinen was No 55 at the finish line. Despite these excellent results scored once again, it was clear at the time that the Mini Cooper S had passed its pinnacle as a rally car. The legend, however, lived on even after the era of the Mini Cooper had come to an end. And to this very day every rally enthusiast knows the meaning of "33 EJB" – the number plate on Paddy Hopkirk's Mini Cooper S, the winner of the 1964 Monte Carlo Rally.

4. A wolf in sheep's clothing: The creation of the Mini Cooper.



Long before Alec Issigonis drew his legendary sketches of the Mini, he became a good friend of one of the leading constructors of racing cars at the time: John Cooper. Cooper used Morris engines in his Formula Junior racing cars and was therefore a much-appreciated specialist acknowledged by Issigonis as the right man for discussing engine concepts. So John Cooper was deeply involved in the process of developing the Mini right from the start.

With the Mini gradually becoming reality, Cooper was confident that this new car set to enter the market was exactly what he had been looking for for a long time: the foundation for a sports car able to compete with the Lotus Elite. Cooper had already tried to challenge the Elite with a Renault Dauphine powered by a Coventry Climax engine, but was far from happy with the car's handling. So as soon as he got his hands on this new small athlete, he started preparing the car for racing, taking an original Mini Cooper to the 1959 Italian Grand Prix in Monza together with his driver, Roy Salvadori.

From the start, their journey to Monza developed into a race with Reg Parnell, another famous racing driver, who was travelling to Italy in his Aston Martin DB4. At the finish line Cooper's new Mini was a whole hour faster and Cooper was more than convinced that the Mini had all the potential he had been hoping for.

Starting out with 1,000 Mini Coopers.

Cooper then approached Issigonis with the proposal to develop a small GT out of the Mini. But Issigonis, as before, saw the car as a "people's car for everybody" and turned down the suggestion. Not letting go, however, John Cooper contacted George Harriman, the Chief Executive of BMC, directly. BMC or, to use the full name, British Motor Corporation, had been formed in 1952 by the merger of various British car makers, comprising, among others, the Austin, Morris, MG and Wolseley brands. And Harriman was convinced of Cooper's idea, agreeing to build a small series of 1,000 Mini Coopers in order to test public response.

With the engine not supposed to displace more than one litre, Cooper set off by increasing stroke from 68.3 mm (2.69") to 81.3 mm (3.20") and reducing engine bore from 62.9 mm (2.48") to 62.4 mm (2.46"), spreading out these dimensions on four cylinders to provide cubic capacity of exactly 997 cc. Compression was increased from 8.3 to 9.0, and larger intake valves as well as

double carburettors were added as further features. Additional modifications were the larger outlet opening and a reinforced crankcase designed to cope with the extra power of the engine. Cooper also modified the gear ratios in the interest of higher top speed, engine output increasing to 55 bhp and top speed to approximately 130 km/h or 81 mph. To add the right brakes for this extra power, Cooper finally fitted 7-inch Lockheed disc brakes on the front wheels.

Many motorsport enthusiasts were thrilled by this new concept and a long series of successful entries in motor racing convinced BMC that this was the right car for the future.

A power unit built for success: 1,071 cubic centimetres, 70 bhp.

Now Issigonis also changed his mind, joining forces with John Cooper to boost engine output to an even higher level. The concept applied for this purpose had already proven its merits in John Cooper's Formula Junior power unit: small engine stroke with a large bore, combined with reinforced bolts for the cylinder head. Proceeding from this concept, the engineers choose the 848-cc power unit as the basic engine for the Cooper S. With stroke remaining unchanged at 68.2 millimetres or 2.69", bore was increased to 70.6 millimetres or 2.78", thus reaching the absolute limit. This enabled John Cooper to achieve two important targets at the same time, engine displacement, at 1,071 cc, remaining below the 1,100-cc limit applied in the racing class envisaged, whilst the short stroke allowed the engine to rev reliably and smoothly at high speeds. Accordingly, maximum output was 70 bhp at 6,200 rpm and maximum engine speed an even more impressive 7,200 rpm.

Clearly, this extra power also meant a higher top speed requiring John Cooper to take a look at the brakes, too: Brake disc diameter was increased to 7½ inches, and brake power was now boosted by a servo. Introducing disc brakes, Cooper also opened up the door for Lockheed to enter a new market. So far disc brakes had been featured only on much larger and more expensive cars, but were now able, thanks to the success of the Mini Cooper, to move down into lower market segments.

**Ten years of production with a 19-year break in between:
the return of the Mini Cooper.**

The Mini Cooper was built to these – or similar – specifications for exactly 10 years, from July 1961 to July 1971. But then Lord Stokes stopped production. Worldwide demand nevertheless remained substantial, inducing John Cooper to build tuning kits of great popularity particularly in Japan. Assuming responsibility for the Mini for a number of years, Rover Group requested Cooper to sell these kits also in their home market, where they likewise became a great success. Recognising this market opportunity, Rover brought back the Mini Cooper in 1990, various versions of the car being

built once again in Longbridge up to the end of Mini production.

John Cooper Garages, going even further, built a number of limited editions based on the Mini Cooper S, such as the Grand Prix, Sport 5, Cooper S touring, and the 90-horsepower version. And naturally there are also the John Cooper Tuning Kits available.

5. The three musketeers: Fast men in their Mini Coopers.



Paddy Hopkirk.

Patrick Barron Hopkirk was born in Belfast, Northern Ireland, on 4 April 1933. After finishing school, he studied agriculture at Trinity College in Dublin for three years, then taking up his studies in engineering. In 1955 he left university and started his career as a rally driver first with Triumph and then with Rootes. During these early years in motorsport Paddy developed business interests in Belfast with various car companies such as the Paddy Hopkirk School of Motoring and Paddy Hopkirk (Garages) Ltd.

Although Paddy never adopted Rauno Aaltonen's style of applying the brakes with his left foot (a style of driving, indeed, destined to make inroads in rally racing), he nevertheless became one of the fastest drivers in the sport, finishing third in the 1962 Monte Carlo Rally at the wheel of a Sunbeam Rapier. Despite this very good result, he felt that the Rootes Team failed to acknowledge his full potential, so he decided to switch over to the BMC Team, driving an Austin Healey 3000. When joining BMC, Paddy entered the scene at virtually the same time as the Mini Cooper. And after having thoroughly tested this small and nimble front-wheel-drive athlete, he not only felt perfectly at home with this drive concept, but also set his focus from now on rally cars built to this principle. Driving the Mini Cooper, Paddy Hopkirk gained international recognition through numerous outstanding victories and top places in the most challenging events. Apart from victory in the 1964 Monte Carlo Rally, his greatest achievements include the winning title in the 1965 and 1967 Circuit of Ireland, the 1966 and 1967 Alpine Rally, and the 1967 Rally Acropolis. Finally, over and above this wide range of racing activities, Paddy Hopkirk also entered road races such as the Targa Florio and Sebring.

In 1970, two years after BMC's Chief Executive Lord Stokes had closed down the Works Motorsport Department, Paddy Hopkirk withdrew from professional rally racing to concentrate on his business interests. However, he has not let go of the sport completely to this very day, entering the RAC Golden 50, the anniversary event for the 50th RAC Rally, in 1982 and indeed winning this historical event together with co-driver Brian Culcheth in the very same Mini Cooper which had brought Timo Mäkinen victory in the 1965 Monte Carlo Rally. In 1990, in turn, Paddy entered the Pirelli Classic Marathon, bringing home the title together with co-driver Alec Poole.

With Monte Carlo never losing its outstanding appeal, Paddy Hopkirk decided to try his luck once again in 1994, entering the Rally in a new Mini Cooper together with co-driver Ron Crellin. Boasting starter number 37 and the L33EJB number plates front and rear, Paddy battled it out against far more modern cars and came home in an impressive 60th place thirty years after his legendary victory.

Rauno Aaltonen.

Rauno Aaltonen was born in Turku, Finland, on 7 January 1938 – and from the very beginning he was fascinated by everything motorsport had to offer: At the tender young age of 12 he started racing fast boats on water, winning the Finnish Speed Boat Championship no less than 7 times and even bringing home the Scandinavian Championship at the young age of 20. Another of Rauno's passions was motorcycles where he became a member of the National Speedway Team and won the Scandinavian Grand Prix in road racing on a 125-cc Ducati. At that time he majored at university in economic science and then dedicated his attention to rally racing. In summer he battled for points at the wheel of a Mercedes, in winter he drove a Saab and won the Finnish Rally Championship in 1961.

Rauno Aaltonen joined the BMC Team in 1962, entering the Monte Carlo Rally at the wheel of a Mini Cooper. Holding second place just three kilometres from the finish line, he misjudged a bend and rolled over the car in a bad accident. With his car catching fire immediately, Rauno barely managed to get out and escape the flames in time. A year later he finished third overall in the Monte Carlo Rally in his Mini Cooper and won his particular class, then finishing 7th in 1964.

After scoring a number of wins and leading places in international rallies, Rauno Aaltonen won the European Rally Championship in 1965. He then continued his story of success throughout 1966, moving on to another highlight in January 1967 when, in his inimitable style and with the help of the right tyres, he became the overall winner in the Monte Carlo Rally.

Well-known as the "Flying Finn", Rauno spent the following years as a works driver with Lancia, Saab, and Nissan. In 1976 he was appointed Chief Instructor of BMW Driver Training also on account of his analytical and teaching talents giving him the nickname "Rally Professor". In 1981 the government of Finland honoured Rauno's commitment to motorsport and road safety by making Aaltonen a member of the Order of the Finnish Lion, and in Germany he was awarded the Cristophorus Prize. To this very day, Rauno Aaltonen remains active in both motorsport and traffic safety as a very popular driver and sought-after advisor.

Timo Mäkinen.

Timo Mäkinen was born in Helsinki, Finland, on 18 March 1938, starting his professional life by delivering newspapers for his father's transport company. But soon he started racing in ice track events, subsequently entering circuit races. In the late '50s he then hit the headlines for the first time through his success at the wheel of a Jaguar D-Type.

Timo entered his first rally in 1960, sponsored by the BMC importer in Helsinki. And from now on he knew exactly where his future was in motorsport: it was in rally racing. So soon he started to make a name for himself at the wheel of an Austin Healey 3000 and the Mini Cooper, showing particular preference for the small front-wheel-drive athlete: Mäkinen was one of the first drivers to prove the Mini's potential and develop the right technique for scoring successful results in the sporting Cooper. This soon brought him to the attention of BMC's Team Manager Stuart Turner, who hired Mäkinen for the 1962 RAC Rally, in which Timo finished 7th overall.

Assisting Mäkinen as the co-driver in an Austin Healey 3000, Christobel Carlisle described the Finn's style of driving in the following words back in 1963: "After three hours of driving over one snowbound pass after the other all I wanted to do was take the next plane home. Quite honestly, I was scared out of my mind. He kept on and on at 130 km/h, power-sliding round every bend. But nothing ever went wrong. So I gave in to destiny. And at the end of the Rally I believed in Timo so strongly that I was able to push him even harder in order to meet the time limit." This, perhaps, explains Timo's outstanding performance in 1965 when he won the snowbound Monte Carlo Rally far ahead of the competition.

Racing the Austin Healey 3000 and the Mini Cooper, Mäkinen scored one outstanding result after the other back in the '60s. His victories at the wheel of the Mini Cooper include the 1964 Tulip Rally, the 1965, 1966 and 1967 Thousand Lake Rallies, and the 1966 Three Cities Rally. In 1968 he switched over to power boat racing and immediately won the Finnish Offshore Championship, subsequently winning the Round Britain Race in 1969.

Timo Mäkinen continued rally racing for Ford and Peugeot well into the '90s. And like Paddy Hopkirk, he also entered the 1994 Monte Carlo Rally at the wheel of a new Mini, even though he was unable for technical reasons to reach the finish line.

6. A big star in a small car: Rauno Aaltonen all about Mini and MINI.



Do you remember your first Monte Carlo Rally in the Mini?

Of course – that was back in 1962. And it was my first Monte Carlo Rally ever. Before entering, I had called BMC's Motorsport Director Stuart Turner who I knew from various summer rallies, asking him about a car for Monte Carlo. He told me that he had already registered two cars with Geoff Mabbs and Pat Moss at the wheel. And since the registration period had already expired, I officially became Mabbs' co-driver. But in actual fact I was the one who took the wheel.

What were your first impressions?

Well, that was the first time a Mini Cooper was ever raced in a major rally. And the car was really great! I hadn't expected it to be so reliable the very first time. Just imagine – just a few specials trials before the finish line we were second overall!

But what happened then?

I had an accident. It was dry and I wasn't going too fast, but somehow I touched the cliff on the left-hand side on a narrow stretch of road, and that was it. The car flew off the road, rolling over four times and exploding in flames. Maybe the right-hand-drive steering was the reason for my mistake, I really don't know. Anyway, my co-driver was able to get out of the car first, nothing happened to him.

What did you like best about the Mini Cooper?

When I saw the car the first time, I was convinced that it had to be extremely agile with its wheels right out at the corners. And I was right! The Team had really prepared both the car and the engine excellently, making all the modifications allowed and possible at the time.

My 1962 Mini Cooper featured a modified camshaft different from the circuit racing models, with engine output of approximately 85 bhp. The gear ratios were probably also different from the standard model. Obviously, with relatively little power like this, we had to make up for our disadvantage elsewhere, driving downhill faster than the competition. But that was dead easy with our light and nimble Mini.

But you still had to be an excellent driver...

Being the "inventor" of the left-foot-braking technique, I had big advantages in the Mini Cooper. In fact, I developed this technique back in 1958 when switching over for the first time from rear-wheel drive to the front-wheel-drive Saab. To begin with I kept on ramming big holes in the snow, since I simply slid on in a straight line. Being really nice guys, my colleagues told me there was a lever in the middle you could also use for braking! But I felt that using the handbrake was not logical, since it's always better to keep both hands on the steering wheel. So I developed the left-foot braking technique on the Saab – with the additional benefit of exerting a greater load on the front wheels when applying the brakes. And for some reason the other drivers were not that good in using this technique, not even when I drove the Mini later.

What would you have wanted most on the Mini Cooper back then?

Bigger wheels! We constantly had tyre problems. Although the shortest special trial on the Monte Carlo Rally was only 12 kilometers, all the tyre tread was gone at the end. So 13-inch-tyres would have been much better, and even 12 inches would have been enough. But somewhat it never worked out.

Weren't the small wheels also a disadvantage in the snow?

No, because we had by far the best tyres back then. We used Finnish winter tyres and the Finnish tyre industry was years ahead in developing tyres with a good grip. Since there are no high mountains in Finland, we don't use snow-chains. Instead, manufacturers have developed high-grip tyres making us far superior to the competition. Later we also had spikes, but they often overheated on dry roads and started flying off the tyres.

Are you still in touch with your colleagues from the old days?

Yes, we meet now and then. Maybe once a year. Paddy Hopkirk is older than me and he's not that active any more. Timo Mäkinen lives in Helsinki, but he doesn't know foreign languages that well, so he prefers to stay in Finland.

Did you have any amusing experiences with the Mini?

Sure. Once, after being disqualified in 1966, I came back in December to practice for the 1967 Monte Carlo Rally. But it's really impossible to drive on Sunday, since there are simply too many ski tourists on the roads. So I decided to go skiing instead. And since there was no parking space available, I parked the Mini Cooper right in the middle of the market square. It was the only car in the entire area. Within a matter of seconds a French policeman came running up to me, asking what I was doing there with my car. He demanded to see my driver's licence – but when he read my name, he said: "Oh, Mr. Aaltonen, you can do anything you like!" Then he even apologised for the organisers of the Rally, saying that they shouldn't have disqualified us! Now, looking back in hindsight, it's fair to say that this disqualification gave the Mini huge popularity and really made us famous. Maybe more so than even the best racing win.

Do you know how many rallies you raced in the Mini?

No, I really have no idea. But in the '60s I drove Mini Cooper most of the time. And that was when I scored more overall wins than any other rally driver in the world – nearly all of them in a Mini Cooper.

When did you drive the “classic” Mini the last time?

For the works team in 1968. But in the mid-80s I raced a private Mini Cooper in a circuit event.

And how did it go?

I won. Because the race track was really very tight with lots of corners.

How do you like the new MINI?

It's great! The designers have really succeeded in capturing the spirit of the Mini. The car is really unique, much more outstanding and convincing than all those so-called retro models. And the driving feeling is also the same: Both generations of the Mini or MINI stand out from all other cars in exactly the same way. They are extremely agile and follow the steering immediately. Let me give you a comparison: Back then the Mini was a Princess, really beautiful and full of style. Today the Princess has grown up and the new MINI has become a Queen.

7. The Mini in Motorsport: Most important wins and racing success.



Right after making its first appearance, the Mini proved to be a genuine sports car in the true sense of the word, countless teams and private drivers recognising and acknowledging the great potential this small car had to offer with its driving behaviour reminiscent of a go-kart.

Apart from rallies the Mini – first the original, then the Cooper and Cooper S – raced consistently for victory also on road circuits. The first circuit event with Minis was in Silverstone in 1960 where drivers such as Graham Hill, Jack Brabham and Jim Clark took the seat in this small but fast racing machine.

Still, the most significant stronghold of this nimble athlete was and always remained rally racing, the works Minis tuned by John Cooper becoming increasingly competitive with more power in their red livery. Starting in 1962 the Mini Cooper and, later, the Mini Cooper S brought home a number of international victories, scoring the first win in the Tulip Rally with Pat Moss, the sister of Stirling Moss, at the wheel. According to some sources, the Mini Cooper brought home no less than 153 racing wins in 1962 alone.

The most important wins and racing achievements at a glance:

| Year | Event | Team | Place |
|------|-------------------|-------------------|------------------|
| 1962 | Tulip Rally | Moss/Riley | 1 st |
| 1962 | Baden-Baden Rally | Moss/Maymann | 1 st |
| 1962 | Geneva Rally | Moss/Maymann | 3 rd |
| 1962 | RAC Rally | Aaltonen/Ambrose | 5 th |
| | | Mäkinen/Streadman | 7 th |
| | | Morrison/Finley | 13 th |
| 1963 | Monte Carlo Rally | Aaltonen/Ambrose | 3 rd |
| | | Hopkirk/Scott | 6 th |
| | | Maymann/Domleo | 28 th |
| 1963 | Tulip Rally | Hopkirk/Liddon | 2 nd |
| | | Mayman/Domleo | 21 st |
| 1963 | Alpine Rally | Aaltonen/Ambrose | 1 st |
| | | Mayman/Domleo | 6 th |

| | | | |
|------|----------------------|--|---|
| 1964 | Monte Carlo Rally | Hopkirk/Liddon Mäkinen/Vanson Aaltonen/Ambrose | 1 st 4 th 7 th |
| 1964 | Tulip Rally | Mäkinen/Ambrose | 1 st |
| 1964 | Alpine Rally | Mayman/Domleo Aaltonen/Ambrose | 1 st 4 th |
| 1964 | Tour de France | Mayman/Domleo | 1 st |
| 1964 | Circuit of Ireland | Hopkirk/Liddon | 1 st |
| 1965 | Monte Carlo Rally | Mäkinen/Easter Hopkirk/Liddon Morley/Morley | 1 st 26 th 27 th |
| 1965 | Geneva Rally | Aaltonen/Ambrose | 1 st |
| 1965 | Rally Czechoslovakia | Aaltonen/Ambrose | 1 st |
| 1965 | Rally Poland | Aaltonen/Ambrose | 1 st |
| 1965 | Thousand Lakes Rally | Mäkinen/Keskitalo Aaltonen/Jaervi Hopkirk/Ruutsalo | 1 st 2 nd 6 th |
| 1965 | Munich-Budapest | Aaltonen/Ambrose Fall/Crellin | 1 st 2 nd |
| 1965 | RAC Rally | Aaltonen/Ambrose Lusenius/Wood Hopkirk/Liddon | 1 st 6 th 13 th |
| 1966 | Circuit of Ireland | Fall/Liddon | 1 st |
| 1966 | Tulip Rally | Aaltonen/Liddon Mäkinen/Easter | 1 st 9 th |
| 1966 | Austria Rally | Hopkirk/Crellin | 1 st |
| 1967 | Monte Carlo Rally | Aaltonen/Liddon | 1 st |

8. The new MINI: A more than worthy successor.



The recipe for success has remained basically unchanged since 1959: sufficient space and not a gram of fat, adequate comfort and enough muscle from the engine, lots of character and a truly sporting attitude – no car has remained as faithful to its principles over a long period of 40 years as the MINI.

When the concept for the world's most famous small car was developed back in 1957, the name had already been agreed: Leonard Lord, at the time the Chairman of the Board of British Motor Corporation (BMC), gave Alec Issigonis the brief to develop a miniature version of the Morris Minor. Clearly, this marked the origin of the name "Mini", short for "miniature version".

One of the reasons for developing this small car was the Suez crisis: After President Nasser of Egypt had closed down the Suez Canal in 1956, the supply of fuel to Europe became increasingly restricted and the British government rationed petrol to ten gallons a month.

When the Mini went on sale for the first time on 26 August 1959, it entered the market initially in two variants: the Morris Minor and the Austin Seven. The name "Seven" was subsequently dropped in 1962 and the car became the Austin Mini. And this name proved so successful that all brand names were dropped just seven years later, "Mini" now only being called "Mini".

The Mini: the automotive expression of an entire generation.

Contrary to its fathers' original intentions, the Mini then became a global success not because of its high standard of fuel efficiency: even after the oil tankers started to deliver enough petrol once again and with other small cars soon disappearing from the market in Europe, the Mini moved on from one success to the next.

This was attributable, first, to the unique concept of the car becoming the automotive expression of the "Swinging Sixties". The other factor was the outstanding success in motorsport achieved above all by the Mini Cooper. "The Mini didn't just look like a go-kart, it also drove that way – fast, sporting, and unbeatably agile", to quote the MINI's Chief Designer Gert Hildebrand: "The long wheelbase and short overhangs, the specific balance of the upper and lower body structure, the reduction of exterior dimensions to a minimum with interior dimensions increased to a maximum – all that was and is unique to the Mini. And in its design language, particularly at the front, the Mini

represents the ideal combination of man, woman and child: The wide roof protects the car's occupants like the broad shoulders of a man where the woman feels secure, and at the same time you would like to cuddle the car like a child."

The MINI: the future-oriented reinstatement of the original.

All this applies word by word and letter by letter to the MINI today. Indeed, there is a simple reason why hundreds of thousands of car purchasers have once again fallen in love with the new model: It's the fact that the "recipe" is still the same, enriched in this case by modern assets of the highest calibre.

It is most appropriate to state, therefore, that the MINI is the future-oriented reinstatement of the original. On the one hand it clearly offers the best technology currently available in this segment. On the other hand it has all the genes and character of the original Mini in many of its emotional components. And at the same time it offers all the features so essential in our modern world, such as safety, dynamic performance, flexibility, and individual style.

The MINI is a fully-fledged four-seater, the expression of a modern, urban lifestyle able to meet the expectations of customers in the new millennium beyond the confines of fashion and fleeting trends. The MINI embodies sheer joy of life, bringing together different classes, countries, and generations. And it is exactly the opposite of a status symbol.

The legend lives on: the MINI Cooper S.

Another asset the MINI has inherited is the unmistakable driving experience which no less than 44 years ago inspired John Cooper to build sports cars of a very different kind. Indeed, these models, too, have found their successors – the MINI Cooper and the MINI Cooper S. Driving the S-model in the Monte Carlo Rally back in 1964, Patrick Hopkirk wrote motorsport history and gave generations of enthusiastic motorists the right feeling for sporting performance on four wheels.

Forty years on it is precisely this character which gives the MINI Cooper S its enormous popularity. While retaining the ingenious vehicle and drive concept, the MINI Cooper S comes with the most modern automotive technology within its engine bay and, indeed, throughout the entire body of the car, ensuring maximum driving pleasure and optimum occupant safety. Engine power of 163 bhp/120 kW and maximum torque of 210 Newton-metres or 155 lb-ft give this exclusive driving machine a top speed of 218 km/h or 135 mph, with acceleration from 0–100 km/h in just 7.4 seconds.

A star on winding roads with the feeling of a go-kart.

Agility and direct handling are two of the great strengths all MINIs have in common. Benefitting from its "Plus" sports suspension, the MINI Cooper S is tailored even more specifically to the needs and preferences of the dedicated driver both on winding country roads and on long, fast sections of the Autobahn. Compared with the MINI Cooper's sports suspension, this set-up features reinforced anti-roll bars and even firmer springs. McPherson spring struts at the front in conjunction with a reinforced anti-roll bar, as well as the very direct electrohydraulic steering, provide that go-kart-like driving experience aficionados of the MINI have always appreciated so much.

The MINI Cooper S proves that it is a very special MINI. Not even attempting to hide its appeal, this special car clearly stands out as a powerful and agile driving machine with genuine character. The slanted letter "S" rendering a winding passage of curves both in the side-grilles and on the model designation at the rear clearly stands for power, agility, the joy of motoring on winding roads, as well as pure driving pleasure.

9. The power people: John Cooper Works.



To this very day, the name "Cooper" remains closely connected to the MINI brand. Even before the new MINI entered the market in the year 2001, Mike Cooper, the son of legendary John Cooper, was already considering the idea of a high-performante version, starting to upgrade the series engine during development of the MINI. The outcome soon came in the form of two attractive John Cooper Works tuning versions of the MINI Cooper and MINI Cooper S standing out from the regular production models above all through their extra engine power and higher torque.

200-bhp MINI Cooper S.

The John Cooper Works tuning kit for the MINI Cooper comprises, among other features, a modified cylinder head with a higher compression ratio, modified engine electronics, as well as a special air filter and rear silencer. This conversion gives the MINI Cooper maximum output of 126 bhp (93 kW), sufficient for a top speed of 204 km/h (126 mph), and acceleration to 100 km/h in just 8.9 seconds.

The top-of-the-range MINI Cooper S with its high-performance, fast-revving compressor, in turn, is certainly a most excellent driving machine, maximum output of 200 bhp (147 kW) at 6,950 rpm providing a top speed of 226 km/h or 140 mph. Beefy torque of 240 Nm/177 lb-ft, finally, rockets the most powerful MINI to 100 km/h in just 6.7 seconds.

A great MINI for a great racing series:

The John Cooper Challenge.

What could be more appropriate than to race a MINI tuned by Mike Cooper on a race track? So the idea to create a special racing series, the John Cooper Challenge, soon became reality, the first races being held in 2002.

The John Cooper Challenge is the first racing series for the new MINI enabling young, up-and-coming drivers and talents to challenge each other in exciting races living up to the highest standard in motorsport.

10. Mike Cooper about the MINI: “Hottest, coolest car in town.”



Mike Cooper is continuing what his father started as one of the world's most famous and outstanding designers in motorsport: a 49-year-old family man who only stops thinking of cars when playing his guitar, Mike constantly develops and tests new tuning components for the “hottest, coolest car in town”, as he calls the MINI.

“Driving a lightweight 200-bhp MINI Cooper in Goodwood this year, I was precisely as fast as my father's Formula 1 Cooper back in 1960.”

The Director of famous Power Works in Surbiton just south of London, Mike sold more than 3,000 tuning kits for the MINI in 2003, far more than he had ever expected: “Feedback has been fantastic, particularly from the USA, Germany and Britain.”

This great future was almost obvious right from the start when he and his father John Cooper who passed away in the year 2000 were able to see and enjoy the first MINI prototypes: “When my father saw the new MINI for the first time, the expression on his face said only thing: it's a Mini. That says everything. And he was very impressed by the car's roadholding. The MINI is just as agile and nimble as the classic Mini, but drives just as smoothly and comfortably as a big saloon.”

Mike Cooper on...

...the classic Mini: „The original was a brilliant design concept that stayed young for 40 years. Buying the Mini, you were getting the best car in its class offering lots of driving pleasure. This was the first saloon in the world with the handling of a sports car.”

...the classic Mini versus the new MINI: “Comparing the early Mini with today's MINI is like comparing Fangio with Schumacher. They were both the best at their time.”

...the MINI in motorsport: “It was clear to me from the start that the new MINI was also to be a racing car. So when we launched the John Cooper Challenge Racing Series, it was like a dream come true. Still, we have no intentions right now to enter the big rallies, since this would require a much greater effort and much greater expenditure than 40 years ago. However, I do intend to

organise a World Driver Competition in late 2004, with the best drivers in the national John Cooper Challenges competing with one another. MINI seeks the Super Star!"

...his hobbies: "I love playing the guitar. But I'm a terrible guitarist. So never, never come to any of my shows!"

...his career in motorsport: "When I was 17, my father let me drive a monoposto the first time. The only thing he said afterwards was: 'You're not good enough.' So I only really became successful in 2002, when I finished third in the Celebrity Challenge, an historical race in Australia. But if I had more time, I would love to enter a classic event like the Monte Carlo Rally."

...his life as son of racing legend John Cooper: "For 20 years my father and I went to every British Grand Prix. He just loved it! And every time a Cooper won, he somersaulted for joy in the pitlane. My father was indeed very popular and loved throwing parties. And we often had famous guests, although I didn't always like that so much. When I was seven years old, for example, I had to give up my bed for somebody who was spending the night at our place. It happened to be Steve McQueen."

...the customised MINI: "Many famous people love the MINI. Take Madonna or Kate Moss – they have one of our cars. Kate Moss's Cooper, for example, features a very special interior with a material copying the footprints of a tiger. And there's really no limit to the top. One of our cars was painted inside and outside at the owner's request in the most sophisticated airbrush technique, finally coming with a price tag of Euro 65,000."

11. A comparison of specifications: Mini Cooper S 1964 – MINI Cooper S 2004.



| | Mini Cooper S, 1964 | MINI Cooper S, 2004 |
|---------------------------|---|---|
| Engine | Four-cylinder, transverse | Four-cylinder, transverse |
| Capacity | 1,071 cc | 1,598 cc |
| Bore x stroke | 70.6 mm x 68.2 mm (2.78 x 2.69") | 77 mm x 85.8 mm (3.03 x 3.38") |
| Compression ratio | 9.0:1 | 8.3:1 |
| Max output | 51 kW (70 bhp) at 6,200 rpm | 120 kW (163 bhp) at 6,000 rpm |
| Max torque | 86 Nm (63 lb-ft) at 4,500 rpm | 210 Nm (155 lb-ft) bei 4,000 rpm |
| Fuel supply | 2 SU carburettors | Fuel injection |
| Transmission | Four-speed, front-wheel drive | Six-speed, front-wheel drive |
| Brakes | 7½" disc brakes at the front, drum brakes at the rear, brake servo | Disc brakes all round, brake servo |
| Chassis and suspension | Independent suspension with subframe at the front; track control arms; independent suspension with longitudinal arms at the rear; Hydrolastic suspension | Single-joint McPherson spring strut axle at the front; longitudinal arm axle with track control arms at the rear |
| Length/width/height | 3,050/1,410/1,350 mm | 3,655/1,688/1,416 mm |
| Wheelbase | 2,040 mm | 2,467 mm |
| Track (front/rear) | 1,205/1,160 mm | 1,454/1,460 mm |
| Weight, unladen | 635 kg (1,400 lb) | 1,140 kg (2,514 lb) |
| Top speed | 160 km/h (99 mph) | 218 km/h (135 mph) |
| 0–100 km/h | 12.9 sec | 7.4 sec |
| Production, overall | approx 45,650 | Unlimited |

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