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NATIONAL COLLEGE OF ART & DESIGN
FACULTY OF DESIGN
DEPARTMENT OF INDUSTRIAL DESIGN

BMW
THE ULTIMATE DRIVING
MACHINE

BY
JASON SCANLON

SUBMITTED TO THE
FACULTY OF ART & DESIGN & COMPLEMENTARY STUDIES
IN CANDIDACY FOR THE DEGREE OF
BACHELOR OF DESIGN
1999

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Introduction

Introduction

The story of the automobile is one of the most important and exciting chapters in the history of transportation and technology. The automobile, is one of the most over designed products since its evolution. It is hugely appealing to me as a designer, as automobiles reflect not only technological advancement but social and cultural change also. It has being an object that has been the cause of real movement this century. The automobile is what has torn people from classes and strata, forced them together, mixed them up and changed urban landscapes.

I am particularly interested in the BMW motor company because of its corporate image of being the '**ultimate driving machine**'. I will explore how, why, and when it achieved this image to establish if it can support this claim of class and sophistication or is it just a product of sophisticated promotion and publicity.

The 1990's was the first high successful period for the BMW motor company. By looking at today's BMW it is hard to believe that at the end of the 1950s BMW was practically bankrupt, on the verge of a take over by Daimler-Benz. What went right?

In chapter one I will review the beginnings of the company, from the early days of aircraft engines, to the influential styling of the thirties classics such as the 328, and on into the post war transformation into one of the worlds most admired motor corporations. Through assessing BMW's past I hope to establish how, why and when it developed such a powerful corporate identity.

The world of the future will be characterised by new technologies and for decades BMW has made a decisive contribution to automobile progress by introducing such high technology and making them a reality.

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The world of the future will be characterised by new technologies and for decades BMW has made a decisive contribution to automobile progress by introducing such high technology and making them a reality.

In chapter two I will analyse the distinguishing characteristics of a BMW vehicle and what sets the company apart from all other automobile manufacturers.

Over the decades BMW has claimed that much of the current company success has stemmed from four core product values of technology, quality, performance, and exclusivity. I will also conclude whether or not BMW can support this image.

For BMW the Z3 Roadster of 1997 has been the most exciting and successful development into the companies recent future. This automobile in my opinion stands up best to the claim of being the **'ultimate driving machine'** and I will analyse it to see if it represents everything that BMW claims to signify.

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Chapter One



Chapter One



The birth of the BMW motor company we know today is a fascinating story, one strewn across two world wars and the reunification of Germany. To find the origins of BMW as a company, we have to go right back to 1913. That was the year when Karl Friedrich Rapp, a distinguished engineer who had been a director of an early German aircraft company, set up business independently to manufacture aircraft engines. He established his new company, the Rapp Motoren Werke, in the suburb of Munich, capital of Bavaria. Naturally he chose a spot next to a new airfield and today the twenty-two story BMW administration building stands on that same spot.

In 1916, he secured a contract to build a large number of V12 aircraft engines on behalf of Austro-Daimler, which was finding that it could not build enough to build to meet escalating demand. Rapp sought a backer to finance his company's expansion to meet this new challenge and in March 1916 the Rapp Motoren Werke was renamed the Bayerische Motoren Werke. BMW, the Bavarian engine company, had been formed.

By this time Germany was at war. The new company rapidly phased out airframe production, leaving that part of German aviation to young geniuses like Anthony Fokker. So rapid was the concentration on aircraft engines that once again BMW had to raise additional capital for expansion for military orders.

It was primarily motorcycles and aircraft engines for German fighter aeroplanes which were the best known BMW products. It was from this that BMW got its whirling propeller emblem which was registered in October 1917 (Fig. 1). As a logo it reflected the modernist ideals of the age, with its simplification and its austerity. This style was based on bold colour schemes and patterns of zigzags, circles, lightning bolts, and pyramids. It is said that the pilots view through the propeller was one of

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white and blue alternating segments. Through the years this image has become stylised into solid quarters of blue and white to declare the identity of today's BMW cars and motorcycles.

Fig.1 The BMW company **logo** of 1917.



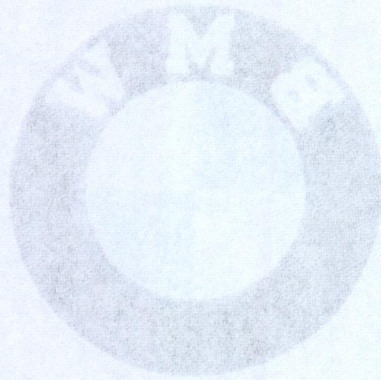
The treaty of Versailles forbade Germany to build military aircraft, forcing BMW's business to drop drastically to nothing. But while searching for new business, one last grand gesture was made to emphasise the company's technological mastery in its field. A new high-altitude 250-hp aircraft engine had been developed. On June 17 the company set a new world altitude record of 32,000 feet, a formidable performance indeed considering that aeroplanes had no pressurised cockpit at this time (Fig. 2).



Fig 2.Fanz Zeno Diemer (centre) set the first BMW world record in 1919.

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Fig. 2. Franz Neno Diermer (centre) set the first BMW world record in 1919.

French and British military authorities were so incensed over this feat, which had been carried out in secret, that the Allied Control commission seized all documents and certifications relating to this record. Today it is still considered an unofficial record.

Car manufacture remained a BMW ambition and again and again it had been discussed at BMW. In late 1928, BMW put their ambitions into reality acquiring the Eisenach vehicle factory, in the city of Eisenach some 200 miles north of Munich (fig.3).

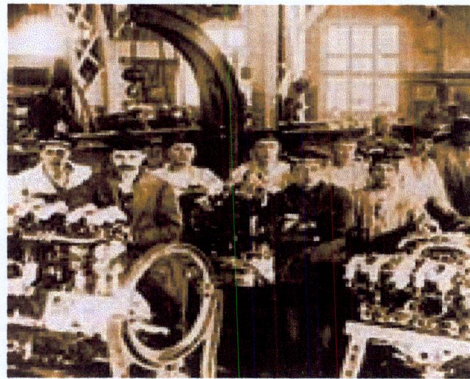


Fig.3 The BMW factory in Eisneach.

The plant at Eisenach has been making cars since 1899 and when BMW took over, it was producing just one model, a license version of England's Austin seven. This modest car would become the first BMW automobile, known as the Dixi (Fig. 4).



Fig.4 The BMW Dixi of 1929.

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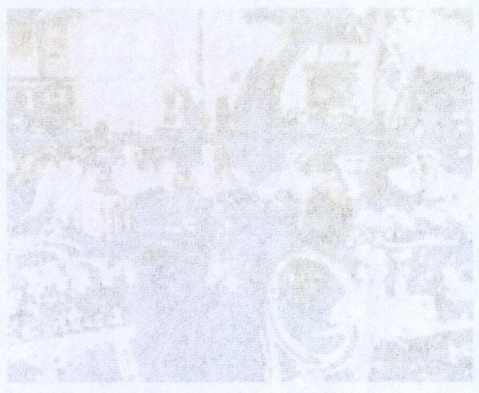


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Fig. 4 The BMW Dixi of 1929.

It entered production as a BMW in October 1929 when the company was awarded the license to assemble it. The Dixi was a small basic car. It was a car that ideally suited the world-wide depression that followed Wall Street's Black Friday (24 October, 1929). Because of its modest scale and price, BMW's imaginative sales methods including hire purchase, reaped this small car considerable rewards for the company selling 18,976 in its first three years of production.

In 1930, a new Industrial Design idiom emerged in the United States and was widely successful in influencing the automobile industry, public taste, and in symbolising the machine age. This was known as streamlining and transformed the awkward mass and the broken lines of the primitive automobile into the unified mass and the slick streamlines of the modern car.

The thirties marked BMW's rapid growth into the status of an established automobile manufacturer, but their cars were to prove a mere spot on the balance sheets in comparison to motorcycle and aircraft engine manufacture on the turn-over statistics. The decade of the thirties, clouded as it was by the great depression and Europe's political turmoil, would never the less prove to be the time when BMW established its reputation as a car maker of high-quality.

This era saw the development of BMW's most desired classic car, the 328 (Fig. 5).

This sporty little two seater coupe delivered a unique motoring experience, one blending delicacy with immense speed.

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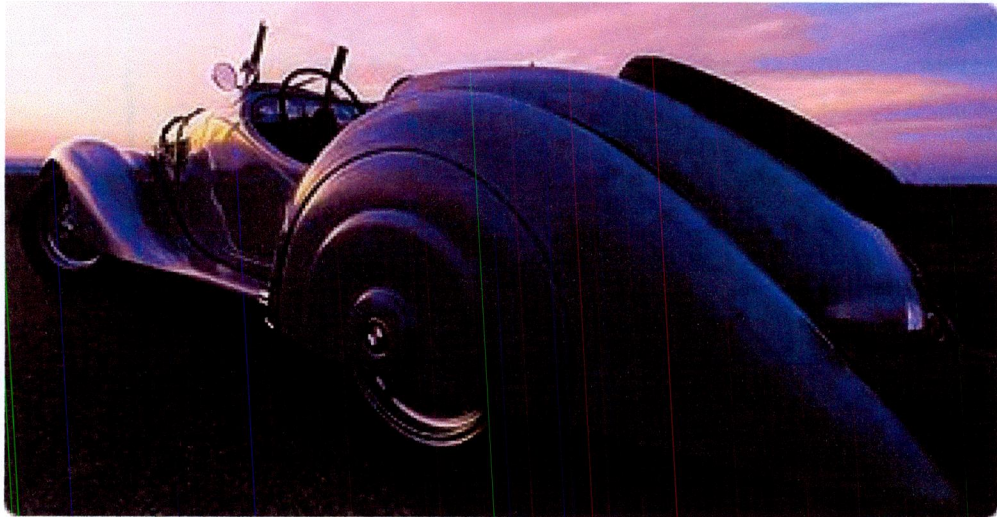


Fig.5 The BMW 328 of 1936.

'Today the 328 may look to some as a pensionable old relic that belongs in a museum, but it is the car that has held the enthusiasts imagination, it had a balance between all its dynamic qualities, particularly power and stability, that made driving the 328 a delight'.¹

The features of this little car are core BMW product values found in every current BMW model. These are unmatched engineering excellence, quality of design and construction, and a unique driver/machine relationship.

The Second World War brought BMW to a high level of manpower with men brought in from prisons and concentration camps to maintain military production of aircraft engines and motorcycles. This phase saw the illustrious pre-war BMW era come to a close. From here production for war was the main occupation, which made the company a prime target for intensive round the clock bombing. BMW was not only a source of military transport at this time but also had been developing rocket motors,

¹ Walton, Jeremy. *BMW Classic's*. Osprey automotive. p.3. 1994.

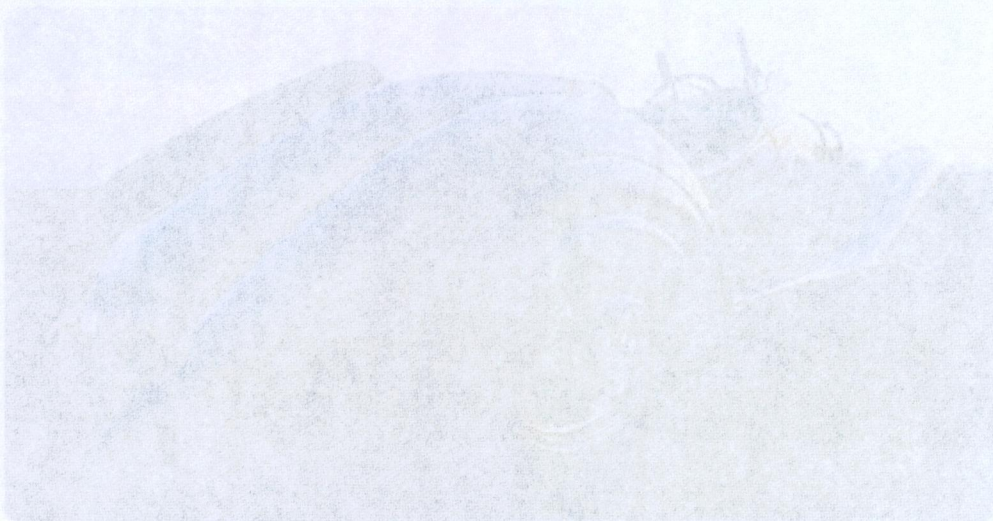


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which had an application for the first Messerschmitt 163 jet plane. Such aviation work brought revenge upon not just BMW, but the city of Munich as well. Older residents still vividly recall how the sky would darken from bombers as the USAAF would bomb the city by day whilst the nights became a literal fiery hell on earth, courtesy of the RAF.

When world war two ended in 1945, little was left of BMW but the name. The Eisenach plant where all BMW cars had been produced was now behind the iron curtain in the eastern zone, which would become East Germany, but the company continued operations with its plant in Munich.

The post war period brought painful rehabilitation to Bavaria's proud engineers. Returning to the car business was not just hard, it was impossible. Just mentioning to the allies the possibility of getting back into aircraft engine manufacturing would have been enough to bring even further constrictions. It was not until 1948 that BMW was allowed to resume production of motorcycles, and even then the displacement was limited to 250cc. This was not as heartless a restriction as it seems, because Germans (as were the rest of Europeans) were still recovering from the war and very few had much money. Motorcycles were a popular form of transportation. Displacement restrictions were lifted soon afterwards, and BMW experienced a boom in motorcycle sales. Before the war, it took the company fifteen years (1923-1938) to reach a cumulative sales total of 100,000 motorcycles: the same total was reached in only five years (1948-1953) in the post-war period. Germany's car manufactures were not the only ones to suffer; American auto plants also became production centres of military supplies during world war two. Car production slowed drastically and then almost stopped worldwide. It is true the post-war period was to be one of depression for many motor companies, but for one this was not to be the case.

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This was Hitler's 'people's car' the Volkswagen Beetle. (Fig. 6).



Fig.6 The Volkswagen **Beetle**.

This vehicle was of course Hitler's dream and had at last become a reality. This car, in his opinion, was a symbol of progress and a true symbol of democracy. It is said that Hitler himself put together the list of requirements for his new propaganda instrument. This vehicle would be classless and thus a symbol of collective national culture. This car seemed to thrive on being a simple, basic, classless car, quite the opposite of what BMW thrive on today.

BMW was the last of the German national car producers to make its comeback due to the heavy restrictions ~~lay~~ed down upon the company. It would be fully seven years (Nov. 1952) before BMW could deliver the first post-war production car the 501 (Fig.7).

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Fig.7 The BMW 501 of 1952.

The lines of this car were inspired by Austin in England. It has all the characteristics of an old English black cab and not the type of image we would associate with the BMW of today. This car was severely criticised on its release because of its very weak motor fitted to such a heavy four-door saloon and was replaced almost immediately with a more powerful version, the 502. But because of the bad publicity these cars got from the very beginning they did absolutely nothing for the balance sheets.

BMW recorded operating losses in all but five financial years between 1946 and 1960. BMW management hunted with increasing desperation during 1959 for the finance to build a new car that would save them. They released a new saloon and coupe called the BMW 600 (Fig. 8) but this range caused disastrous cash losses and the company could not go on.



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Fig.8 The BMW 600 of 1959.

December 9th 1969 marked the crucial board meeting at which the chairman of the powerful Deutsche bank issued a financial plan that amounted to a take-over from Mercedes-Benz. But BMW's shareholders, many of them dealers with their livelihoods at stake, fought back. The shareholders were supported by a loan of 30 million DM from the Allach aircraft business and a further 30 million from outside sources.

This financial influence calmed the banks and allowed BMW to release a new model the 1500 in 1962 (Fig. 9).

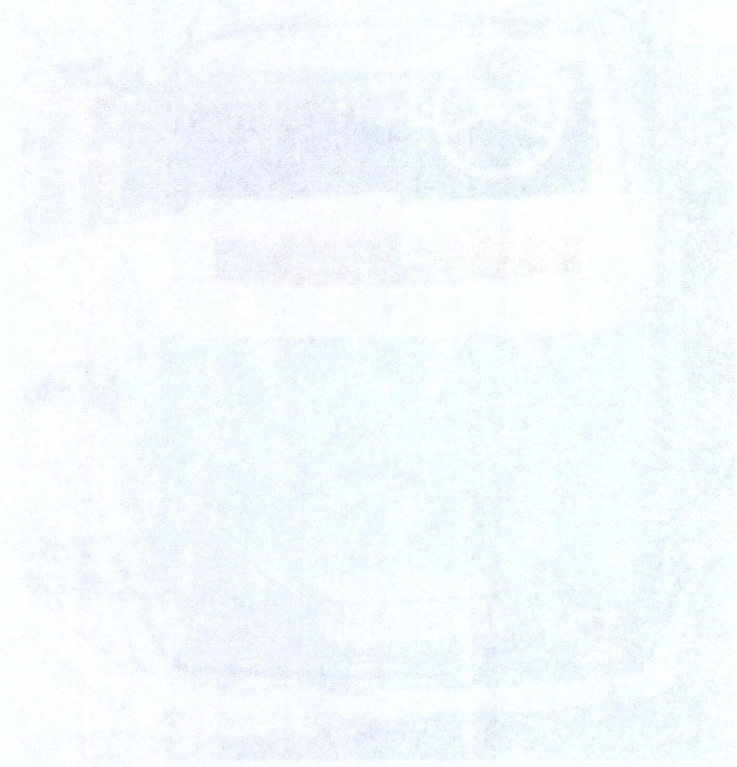


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Fig. 9 The BMW 1500 of 1962.

In European context the 1500 was a middle-class family car and BMW were now poaching in Mercedes-Benz territory. As Germans were, and still are, allowed to drive at unlimited speed, BMW made it a performance car as well. This unlimited speed limit is a factor, which strongly influenced the high performance engines, which play a prominent role in the image it reflects today. This car proved a sensation when BMW launched it into the market in 1962. With their sleek and sporty 1500, the Munich carmakers caught the imagination of a society at the dawning of a new era. Man's first landing on the moon would be the fulfilment of a long-cherished dream, and the appetite and enthusiasm for technological advances was growing. On its launch the 1500 was at the forefront of its time, if not ahead of it, and the motoring press was disapproving of the innovative model. But the disapproval was not to last long. The public's response was overwhelming, and it became clear that BMW had pulled off a major coup. It was as if motorists had just been

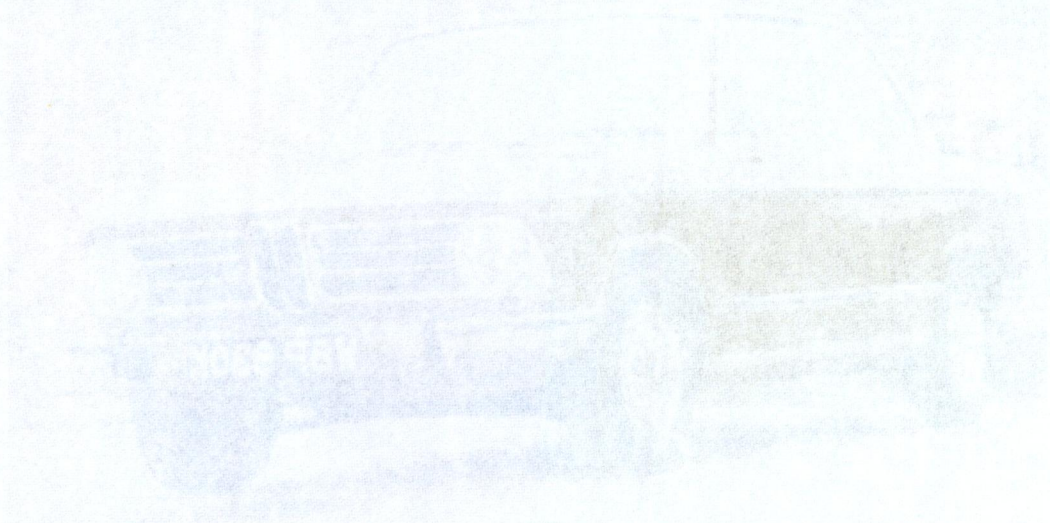


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waiting for a model, like the 1500, to come along. This sleek and sporty model, a complete newcomer to the field, had been designed with a particular type of motorist in mind. BMW's planing and marketing director at the time, Helmut Werner sketched a brief profile of him as follows:

'Our model wasn't going to be your muscle-bound body builder or solid middle-class citizen. What we envisaged was the athletic type: sinewy, fit, agile, energetic and thoroughly youthful'.²

During the first year of market launch, 13,244 cars left the production line and by the second year had risen to 38,572. With the 1500 BMW had written the prologue to what would be a unique tale of global success throughout the sixties.

The shortage and higher price of fuel throughout the early seventies meant the smaller more economical cars were now more popular. The Morris Mini-Minor now more universally known as Mini, which although launched in 1959 flourished in the 1970's as a result of the oil crisis of 1973.

In 1975, the first 3-Series (Fig. 10) was launched as a response to the oil crisis. This was a small family type car and was designed to replace the successful 1500 by giving the current generation an even fresher complexion.

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Fig. 10 The BMW 3-Series of 1975.

The styling is one of subtle evolution from the 1500 as BMW believed their customers had confidence in tradition and at the same time they valued the fact that they are always one step ahead. Through time the 3-series developed into a more classy and powerful car with subtle evolution and clever brand management.

Throughout the early 1980s its market developed from a car which suited the recession of the seventies into a car more associated with the luxury of later models. During the 1980s BMW cars were no longer marketed as family or saloon cars as they were before. BMW cars were now classed as conservative discrete yet powerful cars and thus became a fine example in how the young eighties middle classes could express their wealth and success in life. BMW's became symbols of their newfound wealth and independence. BMW cars were now yuppie hotrods. It is at this point in BMW's history that its clear-cut image and status of class and sophistication had become prominent.



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1981 saw the millionth 3-Series model roll off the production line and with its powerful performance and youthful styling the 3-Series was now attracting a much wider market. BMW's chairman at the time Eberhard Von Kuen-Heim, concluded with satisfaction:

'BMW, as becomes manifest with each new model launch, is gradually moving away from that famous niche in which, for many years, it found its particular clientele and its mainstay'.³

Since the 1500 first appeared the experts at BMW have constantly been working on the continuation of this success story and the 3-Series is a direct result of that. The developers and designers have made great strides down through the years, yet they have remained true to the overall look. For more than three decades BMW has managed to produce six different different-looking cars for its small series.

From the 1500 of the sixties whose radiator grille seemed to be snuffling the tarmac (Fig. 11), to the seventies cars with their noses pointing into the air stream (Fig. 12), and the models of the eighties that seemed poised for a sudden leap forward (Fig. 13). Yet for all their variety, these models clearly belong to the same family.

BMW's head designer Chris Bangle says:

'I don't want any showmanship in design at BMW, I want meticulous systematic precision work that progressively reinterprets the family likeness of our cars in new and exciting ways'.⁴

³ Von Kuen-Heim, Eberhard. **The 3-Series a class act.** BMW Magazine. Oct/Nov. p.39. 1998.

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Fig. 11. 1960's

Fig. 12. 1970's

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The BMW family likeness.

In the early nineties it was possible to see that BMW was a powerful name in the global car building business. In the midst of a fierce recession sales were holding up well. Sales in the American market were up by 30 percent. The German Democratic Republic was re-united with the Federal Republic of Germany, and a united Germany regained its sovereignty. BMW never reacquired its old site at Eisenach, which the Russians dispossessed. The plant would have to be built from scratch in the vicinity and the company did not see any point in it, beyond simple reasons of tradition.

The early 1990s seen recession affecting Europe but certain elements helped BMW achieve success regardless. The powerful brand image meant that demand for BMW cars remained strong, and enabled BMW to increase its share of a smaller market. The new 3-Series, (Fig.14) launched in 1991, further strengthened demand. This was luck; the model launch was not timed to beat the recession and BMW's prices were gradually lowered in real terms against the competition, making BMWs better value for money. This was a planned marketing strategy to provide appeal to a wider buying public.



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Fig. 14 The BMW 3-Series of 1991.

In 1992 a record total of more than 585,000 BMWs were made and for the first time BMW sold more cars than its fierce rival Mercedes-Benz. At this time both of these companies were at the forefront of high production executive cars and put other luxury carmakers in the shade. The white and blue logo of BMW was now and still is the most desirable badge in the luxury car market.

Today's BMW is a global company, with fourteen subsidiaries in Germany alone and foreign subsidiaries in twenty countries. The take-over of Rover allows BMW interaction with the smaller car market and four-wheel drive vehicle market without tarnishing the BMW brand image. Additionally the agreement with Rolls-Royce Ltd on supply and engineering for the development of its future model range as well as purchasing the right to use the company name within the near future, will continue to strengthen BMWs influence on the market place.



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Through investigating BMWs past one can see that the engineering excellence has been a part of the company since it began, but the image it portrays has not. The BMW image is one that has developed only recently, the early eighties to be exact. It is an image that has progressed with engineering and technological advancements. This blending of corporate identity and engineering prowess is the mainstay of the BMW ideal.

But the packaging of an image cannot be sustained unless the product can support the promise. Chapter two will asses BMW as a product or the contents of its packaging, its engineering, technology, research and development. An investigation to confirm if BMW can support their image of being an **'ultimate driving machine'**.

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Chapter two



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BMW claim that much of current company success has stemmed from the development of its powerful brand image. This image has been built on four core product values: technology, quality, performance and exclusivity. These mechanical details are what BMW claim makes a BMW a BMW and what sets BMW apart from all other carmakers.

Research and development at BMW are what make these features a reality and are crucial to the company pledged to the production of sophisticated automobiles. At BMW thousands of engineers, scientists, technicians and specialists work together to make their vehicles superior to its competitors. Until recently all research and development was carried out in ten separate locations, spread across Munich. All this made it an easy decision to put together BMWs creative departments into one central building complex, the BMW RDC, (Research and Development Centre).

In an area of 100,000m² more than 4,000 specialists co-operate in the fields of research, technical planning, production planning and quality assurance.

Design offices with the most advanced computer technology, perfectly equipped workshops and even production areas for building prototypes have been constructed allowing BMWs specialists at the centre to implement even their boldest of ideas. Compiling all this information and ideas and making them a reality have ensured greater vehicle technology, quality, performance and exclusivity in all of today's BMWs.

Recent innovative technological features such as automobile personal computers, tele-fax machines, television monitors, navigational

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Recent innovative technological features such as automobile personal computers, telefax machines, television monitors, navigational

instruments (Fig.15), built in car telephones and the development of the worlds first practical, zero-emission car have earned BMW a reputation of been innovators in automobile technology.



Fig. 15 In car satellite navigation from BMW.

All these features lead to increased comfort and well being making any journey even more pleasurable for its occupants. But the best position to experience BMW technology is from behind the wheel where you can fully understand their marketing slogan 'Pure Driving Pleasure'. The BMW design team says:

'Technology is not something you see but something you feel'.⁵

It was from this centre, that the most important development in recent automobile technology evolved and posted BMW as the spearhead in automobile technology. This development comes in the form of a single automobile. From the outside this vehicle looks exactly like today's standard 7-Series model (Fig. 16).

⁵ BMW design team. 5-Series promotion brochure. p6. 1997.

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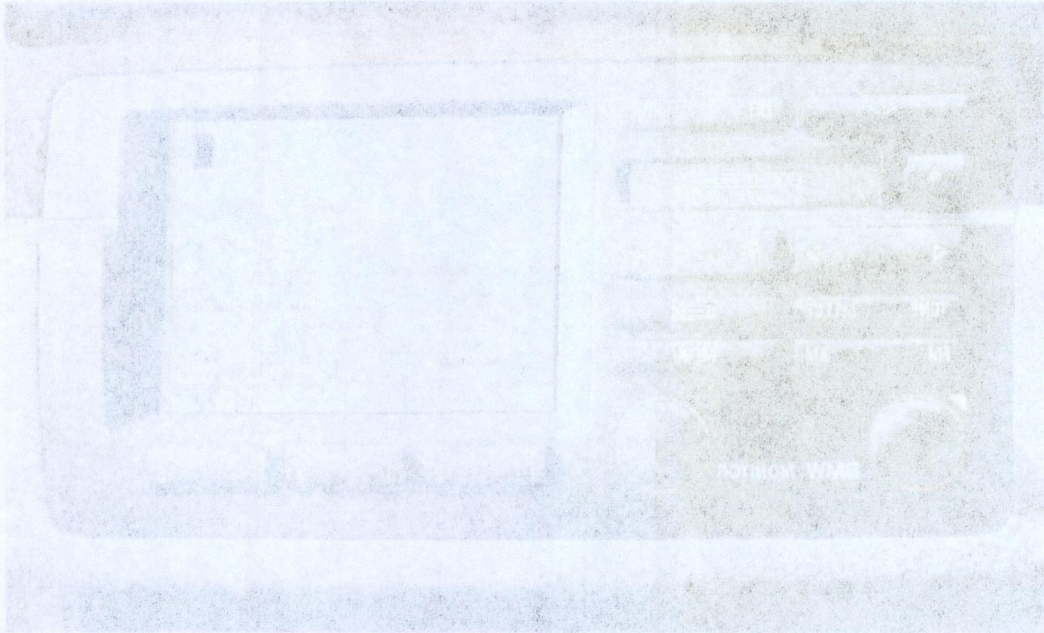


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BMW design team 7-series promotion brochure, pg. 1987.



Fig. 16 The BMW hydrogen drive 7-Series.

There is one small detail, however, which may cause observers to look twice: the car has two fuel caps. Not exactly leading-edge stuff, it would appear. And yet it is precisely that, for, instead of running on petrol, this car is propelled by liquid hydrogen. This burns with the oxygen in the atmosphere to form pure water vapour, leaving behind no trace of hydrocarbons or carbon monoxide. The BMW of the future is more than low-emission; it is virtually a zero-emission vehicle. Hydrogen-powered BMWs are already on the road in prototype form. Their technology is safe, reliable and well proven. The Bavarian Motor Works after all have been busy researching and developing hydrogen-powered engines for almost two decades now. Theoretically, vehicles of this kind could be on the marketplace today. The fact is, though, that motorists would not get very far in them for the simple reason that there are no filling stations.

That will naturally be resolved in due course. This autumn, the world's first public hydrogen refuelling station will go on trial at Munich airport. Filling up with hydrogen is a fully automated procedure during which the driver need not even get out of the car, with the car averaging about 400



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kilometres on a single fill. That also explains the extra fuel cap: so as not to be dependant on hydrogen filling stations, the car can also run on petrol.

This dual function is expected to be around for at least the next twenty years because, while the chemical industry produces and processes around 500 billion cubic metres of hydrogen per annum world-wide, so far there is no country in the world with a hydrogen refuelling network.

The sun burns 400 million tonnes of hydrogen per second and radiates so much energy onto the earth in half an hour, as the entire human race would require in one year. If three per cent of the surface area of the Sahara desert were fitted with solar energy plants, it would provide a regular supply of energy for the whole of Africa and Europe.

But for the longer term, hydrogen has to be the best prospect. Fossil energy resources are limited: existing oilfields will last around fifty years, while natural gas supplies will be exhausted in a hundred years and coal deposits will have been depleted in 200 years time. At the same time, according to estimates by the world energy conference, mankind's energy requirements will increase by 50 to 75 per cent over the next two decades to accommodate the growing industrialisation of developing countries. Furthermore, the intensive use of fossil fuels is increasing the greenhouse effect, i.e. the global warming of our planet.

For these reasons BMW has lost no time in becoming the first motor company to research and develop a practical alternative.

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'Our hydrogen-powered vehicles are just as safe as cars run on petrol or diesel. We anticipate they will be ready they will be available and a common sight on the roads, within the next decade'.⁶

By that time, the extra fuel cap for petrol should be well and truly superfluous.

BMW believe that quality is of key importance at every stage of the manufacturing process, from product conception to customer feedback. All customer feedback is highly regarded at BMW and strongly influences the development of improvements and future products.

A high standard of quality control is achieved through a system of quality audits at every stage of the manufacturing process. This also applies to suppliers of materials and components, who have to work to agreed specifications of quality. Rather than having a quality control department to spot defects, at BMW all employees are involved in achieving quality standards. If a defect is spotted employees from all levels are pulled together to form a group to work out the problem.

Quality is clearly linked to reliability and safety, where design innovation is developed and manufactured to consistent standards. This adherence to specification enables the company to meet customer expectations and maintain its position in the market place.

User friendliness and ease of operation are far from secondary considerations where quality at BMW is concerned. BMW even have a special department where employees spend all their time simulating customers who don't read the instruction manuals. Their aim is to

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ascertain whether somebody who is not familiar with the car can simply get in, drive off and carry out the key operations. Other specialists focus on testing (Fig.17) and honing the ergonomics and arrangement of the controls and instruments, to the extent of assessing the clicking noise of switches and the sound made by the indicator stalk.

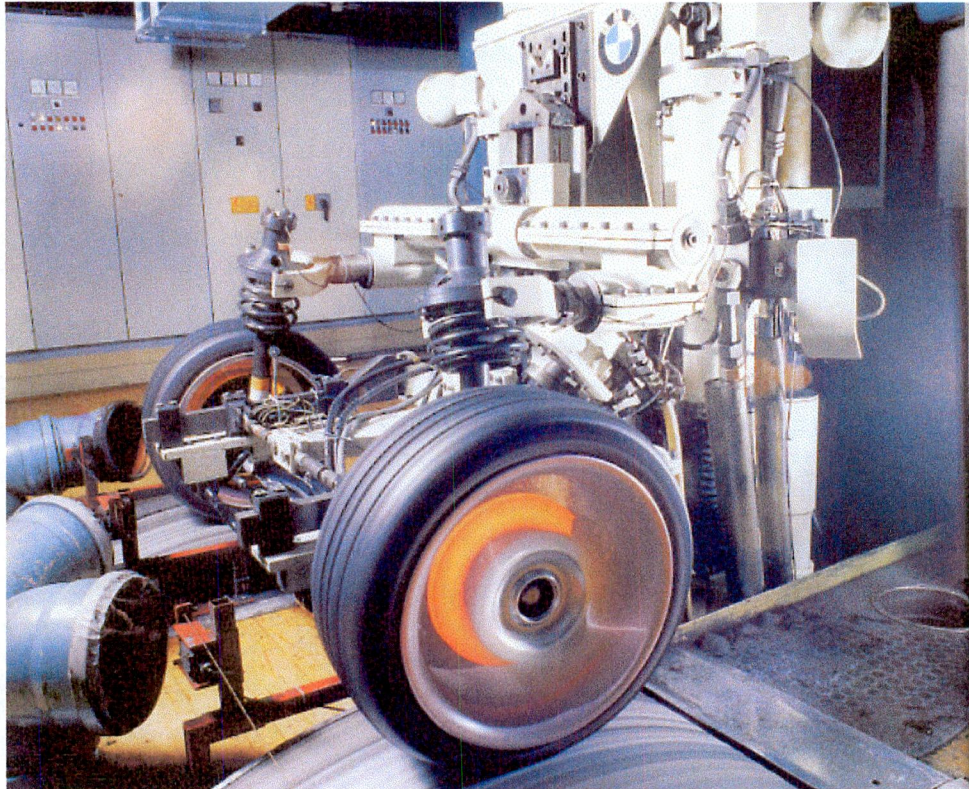


Fig.17 A BMW axle being put through its paces on the production line.

Sheet-metal parts are stamped out by the same sort of immense machines seen in any other car manufacturing company, yet fewer finishing machines like automatic welding robots can be seen on the BMW production lines. Various body seams are brazed by hand and then hand-filed smooth, an expensive process which ceased long ago on competitors production lines. BMW still carry out this tedious process to achieve permanently smooth seams without the heat distortion that would occur if they were welded.

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In the paint area, each body is filled and undercoated by hand, after which each body receives a wet sanding, also by hand, followed by the application of colour in a combined hand-automatic procedure.

Engines are also assembled by hand after which they are rigorously tested for 30 minutes.

The time taken to build a BMW car is twenty-two working hours from start until the car is handed over to dispatch. Completed cars are driven onto, and electrically plugged into a large machine, where each is given a thorough three-minute functional test of its electric's, heater, air conditioner, brakes, engine, transmission, and suspension by a programmed robot. One comes away from a BMW assembly lines feeling that the company has successfully married craftsmanship to technology and that sophisticated machines are performing what is best done by machines, while skilled craftsmen are doing what is best done by hand.

Perfection down to the last detail is a key strand of the Munich carmakers corporate philosophy. All this attention to detail is how BMW define quality.

'Quality can be measured in many different ways. But there is only one way to measure the demands made by the customer, which is why we define quality as perfection to the last detail. This is the only definition we accept'.⁷

Performance has a long tradition at BMW and the company has consistently enjoyed a reputation for conveying their potential not just for their aesthetic appeal and image but their inner values also. In chapter one we learned that during the mid-thirties BMW was a formidable force in

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motor-sports. The seventies saw this tradition incorporated into their saloon cars when they boldly combined comfortable and elegant saloon cars with high performance and powerful engines. The overriding goal was to enhance the experience of everyday motoring by creating an exciting dynamic experience and to achieve a unique supremacy in saloon car motoring.

This thrill of spontaneous power and with the engine responding precisely to every movement of the accelerator is what BMW claim creates 'driving pleasure'.

BMW is not one of the world's largest vehicle manufacturers, yet it is large enough to remain a very profitable company and small enough to maintain a position as a high-class exclusive make. The company has gone to great lengths to protect its image of a select manufacturer of stylish, desirable automobiles.

'BMW builds around 600,000 cars a year, and yet it still retains the image of a select manufacturer of stylish automobiles pitched at the yuppie market rather than the more mature customer base of Mercedes-Benz. The car maker's mix of marketing verve and engineering excellence has made it one of Europe's most admired companies'.⁸

The Munich carmakers has seen its sale quadruple from 13,000 units in 1980 to 63,734 car registrations in 1998 on the UK market. It may be thought that this increasing ubiquity would have dented some of the brand allure over the years. However, through strict adherence to brand values in all aspects of its communication over this period, it has

⁸ Barnard, Bruce. **BMW mixing marketing verve with engineering excellence.** Europe magazine. Dec (Ed). p.22. 1996.

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In compiling this chapter it can easily be seen why BMW cars are priced slightly higher than a large majority of their world wide counter-parts. By employing such a large number of engineers designers and other specialists, BMW have achieved in supplying its customers with the most advanced driving machines on the market. They have succeeded in creating the highest technology, highest quality and highest performance automobiles on the road, while still retaining its exclusive brand image. So at this stage it can be seen that to purchase a BMW automobile one is not paying for a brand image but for an automobile that fulfils its promise of being the '**ultimate driving machine**'.

From here I shall analyse the car which carries out this promise to its fullest, the BMW Z3 Roadster.

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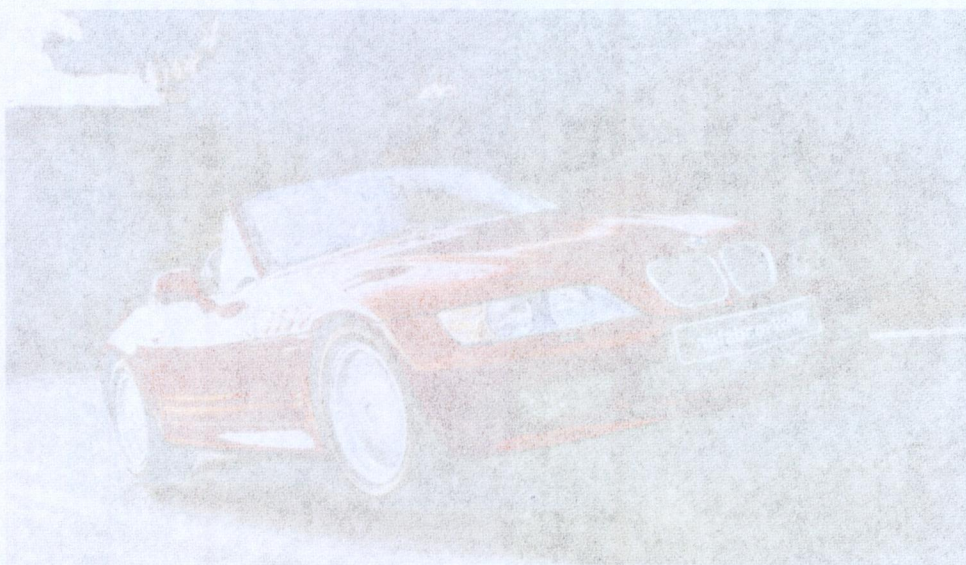
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From here I shall analyse the car which carries out this promise to its fullest, the BMW X3 Roadster.

Chapter Three



Chapter Three



For BMW the Z3 Roadster of 1997 (Fig. 18) has been the most exciting and successful step in the companies recent future.



Fig. 18 the BMW Z3 Roadster of 1997.

But without its forebears, namely the legendary 328 of 1936 and the 507 which was launched in 1957, and without BMWs know-how in roadster manufacturing, accumulated over the decades, the Z3 would not have been conceivable.

The 328 (Fig. 19) completely dominated sports car racing in Europe during the late 1930s and played a major part in establishing BMWs reputation outside Germany.

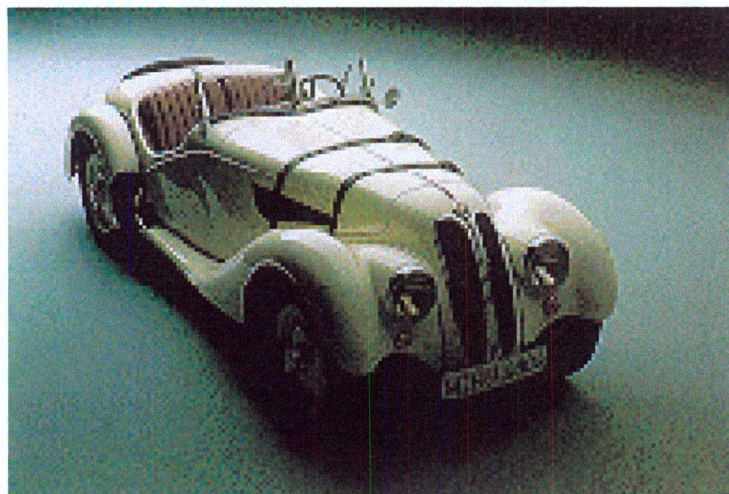


Fig. 19 The BMW 328 of 1936.

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Fig. 18. The BMW Z3 Roadster of 1997.

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The 328 (Fig. 19) completely dominated sports car racing in Europe during the late 1930s and played a major part in establishing BMW's reputation outside Germany.



Fig. 19. The BMW 328 of 1936.

In the European sporting area it claimed the record as the first 2-litre production car to average 100 miles in the hour. The 328 had all the features of a true roadster; two seats, an open top, lively engine, sports suspension, long nose and that typical 'bath-tub' style seated position. It refined these elements consistently and successfully. Even well into the 1960s, the 328 was regarded as the measure of all roadsters. It embodied the very core of roadster philosophy. It was a car with power and fantasy.

The next success in BMW's roadster tradition came in the late 1950s. This car was the most widely recognised classic BMW of the 1950s the BMW 507 (Fig.20).



Fig. 20 The BMW 507 of 1957.

This car was an unmistakable roadster and generated a formidable sporting reputation for BMW. Its long engine hood, its power lines along the sides and the air outlet gills have become the epitome of harmony between shape and technical demand.

Perhaps it was back to that brief golden age that BMW wished to hark when plans were laid for a new sporting roadster in the late 1990s. The

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plan was certainly ambitious: when BMW decided to launch its first roadster in 40 years, and announced that they would design and engineer the car from scratch and build it in a brand new factory in Spartanburg, South Carolina, USA. BMW had big plans for this car and no expense was spared on promotion.

Cohn & Wolfe/NY were chosen to develop a marketing campaign for the Z3 roadster to break the mould of traditional automobile launches. Cohn & Wolfe sought to attract a younger, more style-conscious generation of BMW buyers without alienating the traditional BMW owner. The strong BMW brand equity was used as the foundation for a groundbreaking marketing strategy introducing the company's first car built completely in the United States for world wide export.

The pre-launch publicity and New York City media event capitalised on the role of the Z3 roadster in the new James Bond movie Golden Eye (Fig. 21). It generating as much buzz as the movie and its stars, and resulted in pre-orders of the car which far exceeded the expectations of both BMW and the automobile industry.

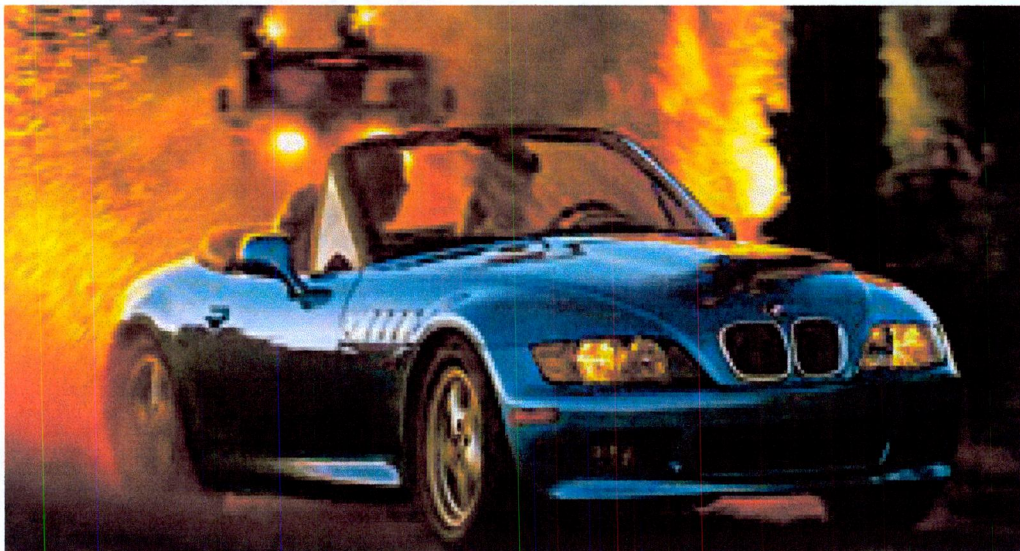


Fig. 21 Scene from Golden Eye featuring the BMW Z3.

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Fig. 21 Scene from Golden Eye featuring the BMW X3.

Their objectives were to create and maintain a high level of awareness and excitement about the design, feel and uniqueness of the Z3 roadster. To generate a consistent buzz in key media, reaching likely purchasers and beyond, and to emphasise BMW's core image strengths while introducing the company to a new, non-traditional generation of buyers. Cohn & Wolfe designed the public relations campaign to put the BMW Z3 roadster in the spotlight and ensure that it would not be upstaged by Golden eye and its stars.

They executed this by creating an aggressive ongoing media relations campaign aimed at national and local media to launch the Z3 roadster without photos of the car, features, price, or technical information.

They built advanced awareness for the Z3 in non-traditional media outlets and positioned the car as a fun, consumer friendly roadster.

They used Central Park for the first public display of the car due to its status as an American landmark and its proximity to national media outlets.

For the presentation they involved the Z3's Golden Eye co-star, Peirce Brosnan, the new James Bond, who exploded a crate onstage to reveal the car.

Cohn & Wolfe's efforts on behalf of the BMW Z3 roadster created unparalleled consumer interest in, and demand for, a car, which was not yet available at the dealerships. The marketing campaign reached all target media, placing the Z3 roadster on magazine covers, television documentaries, and the entertainment landscape as James Bond's new car in the film, Golden eye.

The company's efforts to introduce the BMW Z3 roadster have generated nearly 400 million print impressions in the U.S. The Z3 has been featured in publications including USA Today, The New York Times, Wall Street

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Journal, Newsweek, U.S. News & World Report, and the Los Angeles Times. In addition, the Associated Press, Reuters, United Press International, Knight-Rider, Agence France Press have run stories and photos of the BMW Z3 roadster that have been distributed throughout the world.

The Z3's New York press introduction was covered in twenty-three of the 25 top U.S. broadcast markets for a combined 107 stories. In addition the Z3 was featured on nearly all top rated television and radio programs nationally in the U.S.

The end result of all this publicity was that the BMW Z3 was completely sold out for its first year in production.

It was officially presented to the public at the Detroit Motor Show on January 3rd, 1996. The car represented the new BMW Roadster generation and is at the same time the first automobile manufactured by BMW outside Germany.

Six hundred BMW workers have been involved its production at BMW's U.S. production site in Spartanburg, South Carolina. They produce the sporty, dynamic two-seater in the finest spirit of European roadster tradition.

The whole fascination with the roadster series is its powerful engine, a classic transmission concept and equipment and trim to appeal to the purist; these are the features of the Z3 roadster. It offers a synthesis of engine power, precision handling and unparalleled sensuality of its well-proportioned roadster body. With these features driving becomes a conscious and passionate event with all the excitement of open-top motoring.

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Aesthetically the Z3 is evidence of consistent progress forward from BMW's roadster tradition, with its bold 'air outlet' gills and the subtle bulge in the long engine hood. The exterior reveals no more than a teasing glimpse of its true character. Crouched like an athlete on beefy, low profile types, it seamlessly takes up its position in the lineage of present BMW models, forming the high point of an automotive philosophy, which began with the 328 in the 1930s and now culminates in a rich palette of extraordinary cars. To the delight of its owners, a marvellously deep, yet unobtrusive, sound resonates from the stainless steel tailpipes letting you know it has a thoroughbred engine in a thoroughbred car.

The eloquent front end is striking for its dominant twin headlamps enclosed by high-grade, glass-clear plastic and the unique feature that marks out all BMW models, the distinctive twin-lozenge 'kidney grille' (Fig. 22).



Fig. 22 The BMW Z3 – Front end.

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Fig. 22 The BMW Z3 - Front end.

The side view reveals the cars long engine hood, its steeply raked windscreen and bulging wheel arches for its 18-inch alloy sports wheels (Fig. 23).



Fig. 23 The BMW Z3 – Side view.

The dipping rear of the car has the characteristic BMW taillights, which wrap around well into the sidewall, thereby setting themselves apart from the mainstream design of other carmakers. Its third brake light incorporated into the bodywork and its twin stainless steel tailpipes once again complement its sports look (Fig. 24).

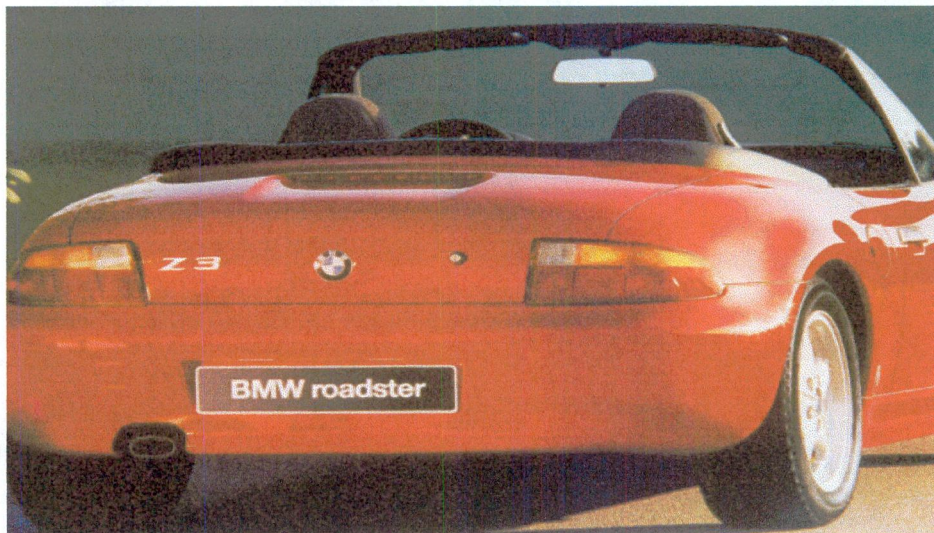


Fig. 24 The BMW Z3 – Rear view.

The side view reveals the car's long engine hood, its steeply raked windshield and bulging wheel arches for its 18-inch alloy sports wheels

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The dipping rear of the car has the characteristic BMW taillights, which wrap around well into the sidewall, thereby setting themselves apart from the mainstream design of other convertibles. Its third brake light incorporated into the bodywork and its twin stainless steel tailpipes once

again complement its sports look (Fig. 24).



Fig. 24 The BMW Z3—Rear view

Driving a roadster stands for an expression of personality and the Z3 can range from an out-and-out sporting look to a truly noble classic style, with numerous accessories and trim options created specifically for the individualist. The Z3 also features the full scope of BMW's advanced sporting engines with the 1.8 and 1.9 selling at a price that's within many budgets at twenty thousand pounds and the top of the range full spec 2.8 and M roadster retailing just over the thirty thousand mark.

The M roadster was created by BMW for people who want to combine the roadster experience with extreme reserves of performance. The M roadster is a high performance version of the Z3 with an enormous 3201cc engine capable of taking it from nought to 60 in 5.4 seconds and power effortlessly up to an electronically-limited top speed of 155mph.

'If the world had waited with baited breath for the Z3, the new M roadster would surely take its breath away'.⁹

It is not just the engine that distinguishes the M roadster from the Z3. The differences are visible too. The muscular rear wings and sturdy front skirts give it a decisive visual boost (Fig. 25).



Fig. 25 The BMW M Roadster.

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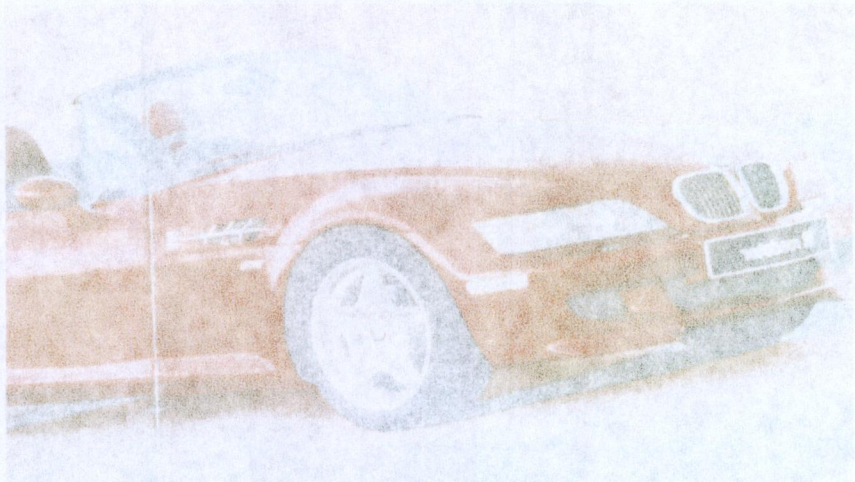


Fig. 25. The BMW M Roadster.

These wider rear track and rear tyres mean that the cars handling recall the proverbial go-cart in its stability and grip. The striking front end improves airflow through the engine compartment and gives the car superior aerodynamic lift values.

In short, the M roadster is an automobile for connoisseurs, for enthusiasts who want to make a long-nurtured dream a reality.

Chris Bangle (Fig. 26) is head of design at BMW and is the man responsible for sculpting such a refined and alluring roadster. He says:

'The BMW Z3 Roadster is one of the most exciting two-seaters of our time. It represents an effortless symbolises of automobile tradition and state of the art perfection redefining the roadster myth in a new and fascinating way. The Z3 has more than just class. It has all the makings of a classic'.¹⁰



Fig. 26 Chris Bangle – BMW's Head designer.

⁹ Walton, Jeremy. **The BMW M Roadster**. BMW M-Series. p.81. 1997.

¹⁰ Bangle, Chris. **Drop dead gorgeous Z3**. BMW magazine.p.23. Feb (Ed). 1998.

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Not only is it the most exciting automobile ever to come from the Bavarian auto-maker, it has also promoted the world's most dashing secret agent, James Bond, to trade in his Aston Martin and Lotus Espirit for the Z3. Indeed, thanks to 007 the vehicle, known as the 'James Bond Car' advanced to become the most talked about BMW car in history.

BMW having a tradition of building roadsters, have put together a car in which they can be proud of. This car represents everything that a roadster should be and also everything that BMW signify. Blending advanced technology excellent engineering and portraying sportiness with beauty to its highest aesthetic appeal. This roadster is BMWs '**ultimate driving machine**'.

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Conclusion

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The main or definite observation to be obtained from this thesis is that yes BMW automobiles can support their marketing slogan of being **'ultimate driving machines'**.

As stated in my introduction, my goal in chapter one was to explore how, why, and when it achieved its image of class and sophistication.

I established that during the early eighties BMW cars were no longer marketed as family saloon cars as they were throughout the seventies. The company had now adopted more youthful performance and styling characteristics and thus became a fine example in how the young eighties middle classes could express their wealth and success in life. The blue and white alternating segments of the BMW badge was now a powerful symbol of this. Through clever brand management from this point in the company's history, the brand name has evolved into the powerful image of class and sophistication it is renowned for today.

Since much of the current company success has stemmed from the development of the brand image, chapter two was an investigation into what is behind this image. BMW claimed this had been built on four core product values of technology, quality, performance and exclusivity. Through assessing these values we seen how the company succeeded in producing the most high technology, high quality and high performance automobiles on the road through the highest standard of research and development, while still retaining its exclusivity through clever brand management.

This confirmed that to purchase a BMW automobile, one is not just paying for a car of sophisticated packaging, but for a car that fulfils its promise through its inner values also.

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Finally to argue my point further, a car that signifies everything that BMW stand for was analysed in dept. This car, BMWs Z3 Roadster, blended advanced technology with excellent engineering and portrayed sportiness with beauty to its highest aesthetic appeal. This car provided sheer driving pleasure, and in my opinion is a classic example of an **'ultimate driving machine'**.

The three letters BMW are a powerful symbol of one of the most remarkable industrial success stories of post-war Germany. More visible, at least to the majority of us who do not live in Germany or drive BMWs, are the BMWs we see everyday on the streets and roadways. These are after-all, the most powerful symbols of the success of a powerfully consistent product philosophy.

Seventy-nine years of BMW success, which has always been defined by firm adherence to a unique heritage and product philosophy, stand behind their success of today.

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Address: [http\ \.WWW.BMW.COM](http://WWW.BMW.COM). BMW homepage. Netscape.
Articles used within the above address under the following headings.

15. BMW awards and accolades.
16. BMW Z3 Roadster.
17. What makes BMW aBMW ?.
18. BMW corporate profile.
19. BMW history and heritage.
20. BMW environmental features.
21. BMW success stories.
22. BMW research and technology.
23. BMW delivers high technology.
24. Z3 fascination
25. Z3 at the Detroit motor show.
26. Z3 Roadster and tradition.
27. BMW M Roadster.

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30. Men and motors. Review on **BMW Z3.** 2 Feb 1998. Granada plus,
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