

Roofless and Razor-Sharp

No other model had such retractable doors, scarcely a sports car handled curves faster: The BMW Z1, unveiled in 1988, was a roadster with innovative high technology, spoiler-free aerodynamics, and BMW's characteristic six-cylinder power.

Text: Jan Wilms

There was a time when the Bayerische Motoren Werke could just as easily have been called the Bayerische Roadster Werke. Vintage car enthusiasts in particular will recall the light and open sports cars — the BMW 315/1, BMW 319/1, and above all the BMW 328 Roadster — that defined the brand's DNA in the mid-1930s. Yet the fundamental commitment to the highest driving pleasure they embodied has been tangible in every BMW to this day. Most spectacularly, of course, in the direct successors to the first roadster generation: the dream car BMW 507, the BMW Z4, and — most remarkably — the BMW Z1, a car that sharpened the joy of driving once more and was packed with technological innovation.

Consider a self-supporting frame structure — the kind of monocoque that until then was used almost exclusively in motorsport. Or new materials such as a body made from recyclable, thermoplastic panels that could absorb minor collisions elastically without permanent deformation. As for the drivetrain, BMW fell back on a tried-and-tested engine: the 170-hp, 2.5-litre inline six-cylinder taken from the BMW 325i.

Doors that disappear at the touch of a button

The Z1 owes its cult status above all to the electromechanically retractable hub doors built into the bodywork. The globally unique door concept was not merely futuristic — it also minimised the distance between driver and road. Anyone who had ever driven a kart felt it acutely: in a car that was perfectly suited to everyday use, yet one in which driving dynamics had never been so effortlessly experienced. The beauty of it: to savour the BMW Z1's wider-than-average track, you did not need to floor it to a hundred kilometres per hour in under eight seconds or push on to the top speed of 227 km/h. A winding country road was quite enough.

The BMW Z1 was entirely focused on driving fun. The interior and instruments were designed accordingly functional — an on-board computer was not even available as an option.

What was also new was the ingenious interplay of front-mid-engine layout and running gear. Because the engine was installed behind the front axle and the five-

speed gearbox used the transaxle principle to drive the rear axle, an optimal axle-load distribution of 49:51 was achieved. While the front wishbone axle was taken from the BMW 3 Series, a newly developed Z-multi-link axle was used at the rear to provide highly precise wheel guidance. The cumulative result of these measures: the BMW Z1 could dispense with a stabiliser bar altogether. It also had the highest lateral acceleration (up to 1 g!) of any comparable car of the era and left sports-car legends such as the Porsche 911 Turbo and Ferrari 328 GTB trailing in corners.

The New Kids from BMW Technik GmbH

The origins of the BMW Z1 were equally cutting-edge: it represented the first development by BMW Technik GmbH, founded in 1985 as a think-tank decoupled from day-to-day operations, with a mandate to rethink cars and develop innovations that mainstream production could only dream of — including a light, ultra-modern, and revolutionary roadster whose technology was meant to make driving a sensory experience. With the Z1, the New Kids from the tech division also proved something that required no proof: that fast driving with your head (and the rest of your body) in the slipstream is the non-plus-ultra of four-wheeled locomotion. At least for those who like to have fun.

A near-production concept was already on display at the IAA in 1987; the production version was then presented at the Paris Motor Show in 1988. It possessed almost all of the innovative features of the concept car — anything but the ordinary. The press spoke of a “cultural revolution”, a “step into the future”, “avant-garde”, or simply described the car’s attributes as “Jet-Set” — hitting the nail squarely on the head. The high price of 83,000 DM was justified by the craftsmanship of the small-series production.

Z1 in Dream Black, Tornado Red or Fun Yellow

Dream black, fun yellow, meadow green, or tornado red — the colour palette made it unmistakably clear that the vivid pop-hedonism of the nineties was just around the corner. The rest of the design, however, followed the philosophy of a roadster and kept only what was essential: the BMW kidney grille, air intakes, and headlamps were designed as geometric rectangles. The front tapered off as the flat end of an ultra-modern wedge form, channelling air resistance-free over the long bonnet and on towards the rear. The airflow was also put to work along the smooth underbody, where a motorsport-style diffuser in a wing profile generated increasing downforce as speed rose.

Along the flanks, subtly pronounced wheel arch extensions hinted at the roadster’s power while still looking extremely delicate — primarily because of the fully retractable side panels, which also made entering and exiting over the sill considerably more comfortable. And while the roll bar was discreetly integrated as the upper edge of the windscreen surround, the exterior mirrors slid up to the

midpoint of the A-pillars — in the safety details too, the Z1's approach was avant-garde.

Aerodynamics without a Spoiler

The result of this purposeful design language was a first-rate aerodynamic profile — a drag coefficient of just 0.43, achieved without a single spoiler or wing. Anyone travelling at such pace naturally needed outstanding sports seats, which were developed specifically for the BMW Z1. Less spectacular in appearance were the otherwise functionally designed interior and the instruments. And an on-board computer was not even available as an optional extra.

By 1991, a total of 8,000 examples of the BMW Z1 had been sold — a car that could never have become a volume model, because it always showed a clear edge. It was never a car optimised for every man and every woman off the forecourt of any dealer. Rather, it was a roadster for pilots who were genuinely interested in dynamic performance and happily traded a little comfort for exhilarating driving pleasure.

30.06.2017