

Porsche 70 Years - There Is No Substitute

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PORSCHE • 70 YEARS

T H E R E I S N O S U B S T I T U T E



Porsche 70 Years - There Is No Substitute: by Randy Leffingwell © Quarto Publishing

It's a heavyweight book, landscape in shape, with a cover picture to (almost) beat all other cover shots. Randy Leffingwell needs little introduction to Porsche enthusiasts, and with a publisher such as Quarto Publishing, you know you can expect a quality product. Another

book covering the Porsche 70 Years anniversary I hear you say, well there is no substitute as the book's sub-title suggests, as the author has compiled a superb book.



1948 TYP 356 GMÜND COUPE PORSCHE: DEFINED



After years of working for others, Ferdinand Porsche—father of Ferry—opened his own engine, vehicle design, and consulting business in Stuttgart in April 1932. While this brought contracts with Daimler-Benz and then with Auto Union for racing cars, he also

designed a small "people's car" that ordinary citizens could afford. A Volkswagen Business man even had his feet in that larger endeavor in suburban Zuffenhausen in June 1936, which put him in contact with Göttsche's new leader, Adolf Hitler, who came to Porsche for a brilliant engine with imagination. Porsche virtually added employees, creating more than 175 engineers, designers, mechanics, and fabricators on his staff. The company designed the Volkswagen, as well as tanks, armored engines, and other projects for the wartime

government. Standing ready to license an and British aircraft targeted industrial centers. As those attempted, the German government admitted it could not guarantee anyone's safety in late 1943 and early 1944.

After heading for Porsche's factory in April 1944, the end result of World War II had come close to Ferdinand Porsche. He built his engineering, manufacturing, prototyping, and consulting operations into three divisions. Company headquarters remained in Zuffenhausen, while the newly industrialized Austria

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A typical Porsche sports chassis with a sprayer Monocoque body, the 906 introduced the tubular space frame concept from the earlier 550s and 700s, and it ran with the racing-based Typ 901 that is, the Typ 906/200, producing 200 horsepower.

While the 906 was ready to look at, the passenger-modified 906 body was expected. Super-Durac, refined engine and main, described the experience. "The technical design resulted from efforts to reduce the drag," he said. "So it had a very rounded windshield, Plexiglas covers for the headlights and signals, and the Kamm [cut-off] tail." Front and rear suspension utilized unequal-length wishbones with shock absorbers, coil springs, and front and rear anti-roll bars. PowerSteer, as Germany, the Typ 906 was not legal on the 1964 US road limits, and customers were able to buy one the road or track with the 906/200 engine for DM 45,000, or \$11,715 at the time. The factory held on to a line of the cars and raced them with the Typ 175. Not eight tested for 210 horsepower. Pich's competition department also created three 906s with long tails for high-speed endurance events such as Le Mans.

While Porsche's "big" machines usually succeeded in light air—and cars can even be placed for 1962, 1963, and 1964—a discipline emerged from Pich's imagination, following both with 13 inch wheels, brakes, and suspension pieces "borrowed" from a Lotus Formula One car. The tubular Typ 906 Emergency, or hill climb, sports, obtained the parameters of the 906 Plus version, and the wider variety of racing line components in 2.2 inch were provided a dramatic difference in road holding and handling. A car handily produced for Switzerland's Gian Villani hill climb finished second overall on its maiden event, and, as the car underwent continuing development, from driver Gerhard Mitter was the 1963 championship. In 1964, Porsche introduced the car as a cheap, convenient off the 906 Carrera S.

Pich directed all the business of the Gian Villani car, and so the Typ 906 was born out of suspension. His techniques based on

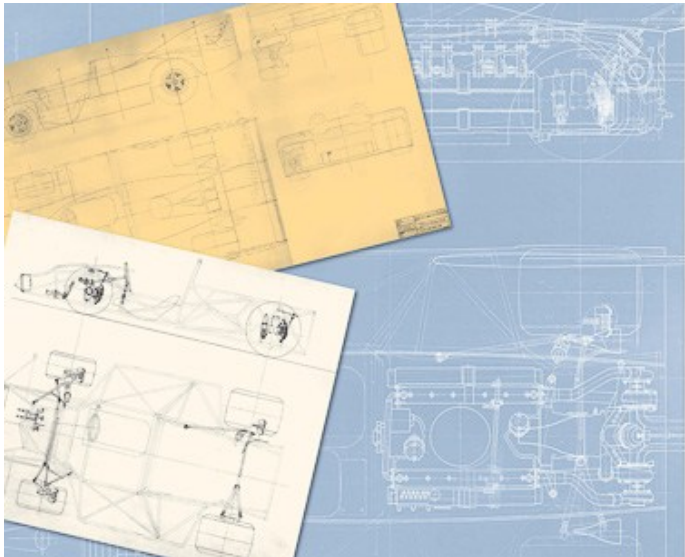


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Choosing to highlight the angle of the design of some of the company's most iconic models, the author has followed a different path to that taken by most others covering the anniversary year. The author's strength of knowledge combined with his wide acceptance

within the walls of the Stuttgart manufacturer, has placed him in the enviable position of knowing who to ask for what information.



an emergency law (Energiebeschleunigungsgesetz) in November 1973 which provided a legal basis for various measures of supply rationing, including a general prohibition on driving motor vehicles on selected Sundays. For a few months in winter 1973/74, this prohibition was put into practice. The impact of this shift in who held petroleum power—the Western customers versus the Middle East producers—had significant economic impact for Porsche.

The 1974 Can-Am season—viewed as irrelevant and irresponsible in light of petroleum shortages—ended after five races and did not resume until June 1977. In Europe, the Maserati continued and Porsche's team driver Herbert Müller won the 1975, 1976, and 1977 championships driving the team's 917/90.

Then Porsche withdrew from factory racing. For a while. As petroleum prices relaxed, another FIA series seemed more promising for their next generation of turbocharged engines.

1980/81: The debut of a series of engine series for the 911, 912, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



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Leffingwell has selected a combination of both contemporary and modern imagery with which to illustrate his text. Here his knowledge of what to look for, covering early original photography and design drawings is complemented by the excellent photographic work by Michael Furman. From the brilliant 1967 Porsche 911 on the front cover to the engineering drawings on the back cover, the selection of images combines to offer the reader a rich and rewarding experience.



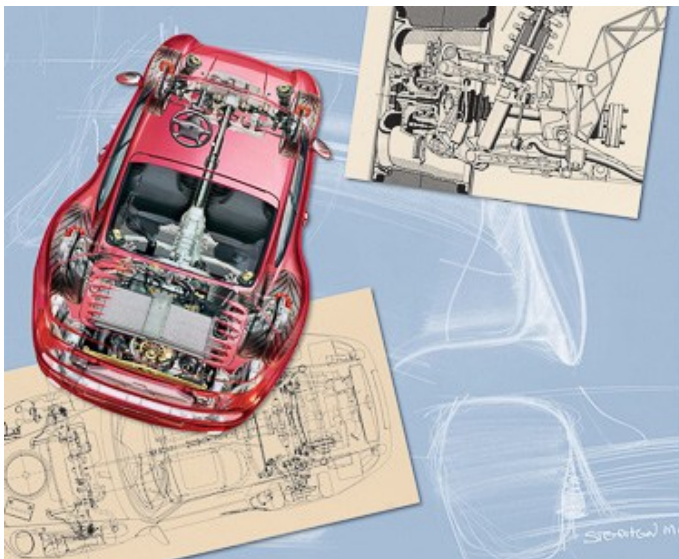
1976 TYP 924/1978 TYP 928
1982 TYP 944/1992 TYP 968
PORSCHE REDEFINED



In late 1965, while Porsche delivered the first of its 1966 model year 911s to dealers and customers, a young firebrand in America published a book calling the US auto industry to task for safety failures. The author, Ralph Nader, was an independent lawyer and he focused on Chevrolet's Corvair, a compact car with a rear-mounted air-cooled engine and a swing axle suspension. Within weeks, the book—consists of *My Speed: The Design and Dangers of the American Automobile*—and Nader to Washington congressional hearings, and Walter Reuther led the creation of the National Traffic and Motor Vehicle Safety Act, a comprehensive set of laws and rules that introduced extensive testing of passenger cars. While these tests measured the first generation Corvair of any "potential potential for loss or control or injury," its fate was sealed: Chevrolet had introduced the Corvair in 1960 and ended production and sales in 1970, having manufactured more than 1.8 million of them; it produced just one thousand in its final year.

With the Corvair's safety to create Porsche's character, Ernst Fuhrmann—used before he returned to Porsche in 1971—had noted Nader's zeal and the American congressional and car buying public's response. It caused Fuhrmann to consider his former employer's future direction.

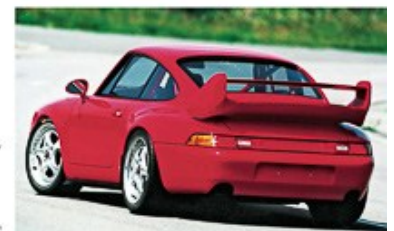
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"Sweet Jesus!" is the same Routledge handbook, he wrote the union "outdated into economic chaos, and the superpower demagogued into Western largely underdeveloped countries." These reports had to try to build their own market economy, even as they struggled with what kind of government they wanted. Uncertainty—for financial markets dealing with a struggling Japanese market economy and attempting to move in to influence Western new nations in Eastern Europe—characterized this period. Scarcity in Porsche's history had its earliest, costly 242 sports cars seemed less necessary.

For those developing the new car, those and other distractions—homogeneity—made the process wonderful. "It was a fantastic time for us," 968 development chief Bernd Kalms recalled. "Mr. Beer had the F1 (performance) and all the executives, the first team, paid attention to the 968. We had it all in numbers. We all knew something important, however it is not good, we are dead."

Fortunately, it was very good. Former manufacturing boss Wendelin Weisbach had become company CEO, and he had streamlined Zuffenhausen production tremendously, reducing on-floor assembly parts inventory from twenty-eight-day supplies to enough for the next thirty minutes. Porsche began delivering 1994 model year 968 coupes and Cabriolets in April that year, and Americans got 1995 models in September 1994. First-year production totaled 1,800 coupes and 1,074 convertibles, each coming to customers at a base price \$5,000 less than the comparable 964 had done, while still delivering measurable profits to the company. As the world economy began to stabilize in 1995, Porsche's health improved. By this time, Porsche had introduced the improved all-wheel drive Carrera 4 models, and a new 408-horsepower all-wheel drive Turbo, delivering near-900 technology and performance to worldwide customers at a fraction of 968 prices. Other variations followed: an RS, a GT2, and a retractable

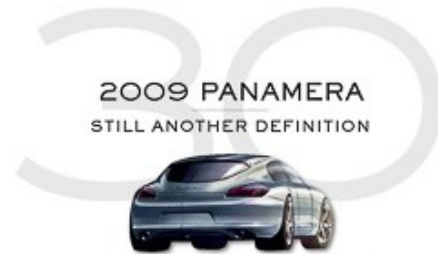


glass roof Targa. Weissach engineers introduced variable managed induction on normally aspirated Carrera models for 1996, taking the initial 273-horsepower engines up to 295. Wide-body rear and all-wheel drive models, the CTR and CTR2 followed.

Being left alone by top management, Kalms and the 968 accomplished as many ambitious improvements as possible. One single one remained unachieved, a challenge to release it had not appeared as a consideration for the 964 and then a reason for the 968. Worldwide without emissions and fuel economy standards demanded greater efficiency from every engine from every maker. And even as engineering specifications looked into place on the 968 back in 1993, other engineers worked toward increasing engine temperature control and ending Porsche's W16-year reliance on air cooling.

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The book covers, for instance, the design of models such as the: 356, 904, 917, 911, 928, 935, 959, 962, as well as current models such as the Panamera, 918, Boxster, Cayman and the Macan. But there is so much more, such as the 906, 910, 907, 908 and 909, to name but just a few of the race cars covered. There is also space given over to the 914 and the Formula 1 cars of the mid-80s, and the awesome 911 GT1 racers. The author has split his coverage of road and race cars to give the reader a rewarding insight into both of these



The Panamera was one more example of Wendelin Wiedeking's far-sighted vision for Porsche. To many critics, that meant looking far away from what had been essential Porsche and finding markets and inventing vehicles for them that diluted Porsche's essence. Or it could be said that it meant sporting markets in which Porsche's interpretation of a valuable vehicle might meet such success as to provide comfort for the company to its traditional sports car—and even the occasional supercar—could maintain. That proposition, in hindsight, seems more accurate.

Consider that Porsche chose to reveal this large, heavy, boxy, four-wheel, four-wheel, four-wheel, high-performance sedan not in the United States, a market with a known appetite for such vehicles, nor at home in Germany, where at least ten other companies already manufactured such cars. Porsche first revealed the Panamera in China, but its most significant introduction to the world occurred in April 2009 at the Shanghai International Automobile Show. Well-looked potential customers saw it on the banks before at a reception introduction on the street fronts. Their observation deck of the 100-story Shanghai World Financial Center being topped off, virtually, through the bright observer staff on a specially designed road. Et thus, Porsche was so well known in China for its other logo.

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Later chapters cover the Cayenne, the Carrera GT and the RS Spyder LMP2 racer. Each model, throughout the book, is addressed in just the right amount of detail without getting bogged down in detailed descriptions of the frictional workings of a big end bearing for instance, but the author also does not gloss over important details.

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"There had never been a concept car it didn't actually build later on." The next day, the four 700-hp engines on the future of the car. "You'll find them in the technology in just five years, the styling too often fails."

More than a thousand others around within days, and in late 1991, Porsche's board approved production, to be completed in Zuffenhausen. By late 2001, more than five hundred thousand employees, designers, and managers were engaged in the 959 production project. Project manager Walter von Proden began in September 1988, 2003. Engineers investigated the 4.5-liter V8 internal combustion engine to develop 600 horsepower, plus its two electric motors, to reach that total of 602 horsepower in an engine 5,000 pounds. They created the world's first vehicle with three independent, individually controlled combustion engines. They incorporated the long-known two-

side steering. Engineers around the 959's chassis have because the backbone by which performance cars are measured. From the concept days, 100mm and 100mm had a tight as well, less than seven minutes. In early September 2003, they found that as a prototype 959, 959 (95) Spide change Max. Each of the wheel, for completed the lap in 45.2, averaging 222.54 miles per hour. How was it not there? "To be completely honest," said 959 (95) A's designer, Mike Muesel, "it's a very complex, very, very unique feature. The car's drivability is absolutely phenomenal."



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In conclusion, this publication offers the reader a condensed history of the Porsche company

and model line-up, from the earliest 356 to the latest Mission E all-electric drive sedan. It is a valuable and entertaining compilation of 70 years of Porsche, and worth every penny of its modest asking price. Do yourself a favour and add this one to your list of books to buy!



Porsche unveiled the all-electric Mission E at the 2015 Frankfurt Auto Show, alongside the second-generation 991/II turbocharged Carrera and Carrera S models. While technical advances with the new Carreras were impressive, the Mission E stole the Frankfurt show from all Porsche's competitors.

With styling that combined Porsche's heritage and moved it a decade or more ahead, the car's statistics and capabilities also aligned with the company's existing performance standards, while enhancing the potential for every all-electric car in the future.

Four doors. Four seats. All-wheel drive. All-wheel steering. A 0-100 mph time of 3.5 seconds. More than 1000 horsepower of electric output. All that's missing, however, might be specifications for the next Panamera Turbo S. But it's the

information that exceeded those statistics that captured observers' attention: two performance-oriented electric motors (PASM) power the Mission E. This is a system similar to and derived from the two-tone La Maserati and World Endurance Championship-winning Topi 959 Hybrid (M1). Porsche developed two unique levels of the typical all-electric car system. According to literature released at the Frankfurt show, owners will be able to recharge the Mission E in 100 minutes to reach 80 percent of maximum stored energy. In 100 percent, the car provides a 300-mile driving range. Unlike

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