

patina perfect

Carefully restored to its original state, this 1959 Porsche Type 718 RSK is an outstanding example of Porsche's famous Spyders, the line of purpose-built race cars that helped establish a tradition of motorsport success for the marque that continues to this day.

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Porsche was in shambles after World War II. With its Stuttgart factory destroyed by Allied bombing, the company was forced to move to a former sawmill in Gmünd, Austria and stayed in business during the war by fixing Volkswagens and farm equipment. It's remarkable that the company survived at all, yet by 1948 Porsche was building complete cars and competing in motorsports.

By 1953, it had introduced the sleek and fast Type 550—the first of the famous Spyder line of cars that included the Type 718 RSK, an example of which you see on these pages. Porsche 550 Spyders were driven to many significant class and overall victories at Le Mans, the Mille Miglia, the Carrera Panamericana and the Targa Florio. The Spyders were not only fast and agile, they were also reliable, which made them the car of choice for many race teams. Their success, both in the hands of factory drivers and privateers, did much to help establish the Porsche name.

Built and raced from 1953 through 1964, the mid-engined, aluminum-bodied Spyders were also instrumental in raising Porsche's brand awareness in the U.S., where they were driven to numerous Sports Car Club of America victories, often by privateers who had the opportunity to buy ex-factory race cars. The 550 Spyder was made famous in the States as the car in which one such privateer, James Dean, died while on his way to an SCCA race in California.

Volkswagen Roots

Mechanically, the 550 Spyder carried over many parts from the earlier 356, but between 1953 and 1957, Porsche made several ongoing modifications to the 550 that made it faster and more reliable. The first 550s were powered by VW-built pushrod flat-4 engines, but by 1954, Porsche was using its own Type 547 flat-4 engine with four overhead cams. Like most pure racing engines, the Type 547 was complicated, with shaft- and spur-driven cams and the camshaft drive placed in the middle of the engine, between the cylinders.

Other significant changes to the 550 came in 1956, when the original ladder frame was replaced with a significantly stiffer steel tube space frame, the rear swing axle suspension was updated and larger brakes were installed; the car was dubbed the 550A. With better handling and improved reliability, factory driver Umberto Maglioli drove a 550A to an amazing overall win at the 1956 Targa Florio, beating faster cars from Maserati and Ferrari.







Below: 718-007 at Paul Russell and Company with single-seater bodywork. Opposite, clockwise from bottom: The start of the 1959 24 Hours of Le Mans; the car was forced to retire from Le Mans as a result of engine failure; 718-007 finished seventh overall at the 1959 Targa Florio.



After five seasons of incredible success with the 550 and 550A, Porsche built the Type 718 Spyder, which was also known as the RSK. The "RS" stands for *Rennsport*, which identified the car as a racing model, while the "K" came from the shape of the downward-sloped upper tube in the front suspension; it doesn't stand for *kurz*, the German word for short, as it often does on Mercedes-Benz vehicles. The unusually shaped front suspension was replaced with a conventional torsion bar design before the car went into production, but the name stuck. Visually, the Type 718 RSK had a clear connection to the 550 Spyder, but its nose and front fenders were more streamlined, and it received more power and an improved rear suspension.

While all of the 550 Spyderys used 1.5-liter engines, modifications to the RSK engine—primarily in the roller bearing crank and cam timing—meant that it could be bumped up to 1.6 or 1.7 liters, giving racing teams more flexibility to race in various classes. A different piston design in the RSK engine also allowed the compression ratio to be taken from 9.5:1 up to 9.8:1, and in some cases to 10:1. Other improvements that came as the engine evolved included dual distributors and Weber carburetors. With its slippery aluminum body, a dry weight of only 1,168 pounds and power output of around 160-170 horsepower, the RSK's top speed exceeded 155 mph. After a year of development in 1957, the Type 718 RSK picked up where the 550A left off, winning its class and finishing third overall at Le Mans in 1958.

One of the most interesting features of the RSK was that Porsche made the car available in a center-seat configuration, making it legal to race in Formula 2, which at the time did not require open-wheel bodywork. Amazingly enough, it took Porsche mechanics only four hours to convert an RSK to this configuration. Porsche entered an RSK with driver Jean Behra in the 1958 Formula 2 race at Rheims, which had a high-speed layout that favored the more aerodynamic closed bodywork of the RSK, and won the race. More sports car wins for the RSK also came in 1958, with class wins at the 12 Hours of Sebring and the Nürburgring 1,000-kilometer race, as well as production championships in SCCA racing and European hillclimbing.

Factory Racer

The RSK featured here is chassis 718-007, a works car campaigned by the factory in 1959. In its first race at Spa on May 3 with Paul Frère driving it suffered from engine trouble and didn't finish. The real heartbreak of the season, however, would come next at the Targa Florio.

Porsche entered four factory cars in the Italian classic, including Wolfgang von Trips and Jo Bonnier in the 2.0-liter class with RSK 718-007 using a 1.7-liter engine. By halfway through the 626-mile race, the pair had opened up a 14-minute lead and von Trips had set the fastest lap, averaging 62.63 mph around the 44-mile circuit. Von Trips was well into the last lap with victory in sight when the RSK's rear suspension failed only 14.5 miles from the finish, resulting in another DNF. He could only watch as the team car of Barth/Seidel inherited the win. Still, Porsches swept the top four positions.

Formula 2. As mentioned, Jean Behra had won the Formula 2 race at Rheims with an RSK in 1958, and Wolfgang von Trips raced 718-007 in center-seat configuration at Rheims in 1959, finishing in fifth.

Being a factory car, RSK 718-007 was used to test new parts, designs or setups in race conditions, so it has some unique features that were not built into customer cars. For instance, this car has an oil cooler built into the underside of the hood, with the idea that the air rushing over the hood would cool the oil. It didn't work, which explains the air

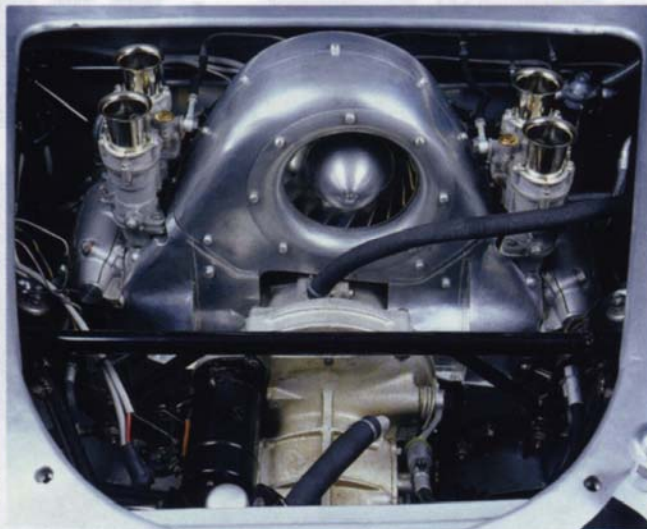
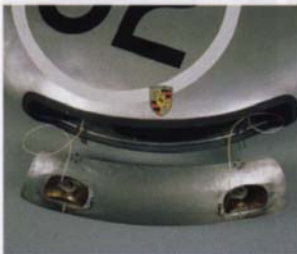
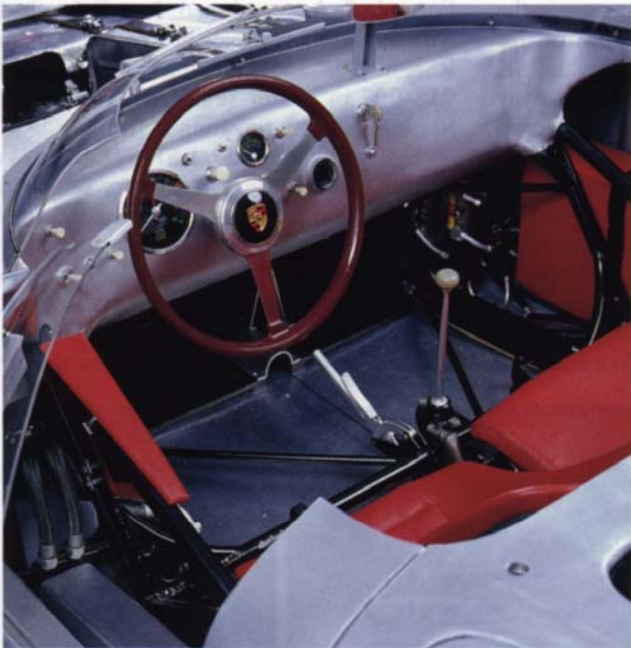


Victory proved elusive for RSK 718-007, though it did have some strong performances in 1959, with a seventh overall at the Nürburgring and a fourth at the Gaisberg Hillclimb. The car also competed at the Goodwood Tourist Trophy and at Le Mans, where it suffered a DNF. For Le Mans, Dr. Ferry Porsche had authorized the use of new higher lift camshafts that had not been tested over a 24-hour distance and the results were disastrous: All six Porsches that started the race retired with either broken camshafts or crankshafts. RSK 718-007 was driven by Hans Herrmann and Umberto Maglioli and was the first Porsche to retire, lasting only five hours.

Despite its failure to win a race, RSK 718-007 is historically significant, as it is one of only two RSKs to be raced in

scoop on the driver's side rocker panel; it feeds a small oil cooler—one that works. Nevertheless, 718-007's original experimental hood is still on the car. It was also the first car to use Porsche's revised rear double-wishbone suspension and a modified rear frame, which allowed easier access to the gearbox.

In the end, a total of 37 Type 718 RSKs were constructed. The evolution of the Spyder continued with the RS60 model of 1960, built to new rules that resulted in a larger cockpit area. It also had the trailing arm front suspension and modified rear suspension layout that were tested in RSK 718-007. Unlike previous 550 and RSK models, the RS60 was the first Porsche Spyder that was readily available to privateers in the same form that the factory raced it.

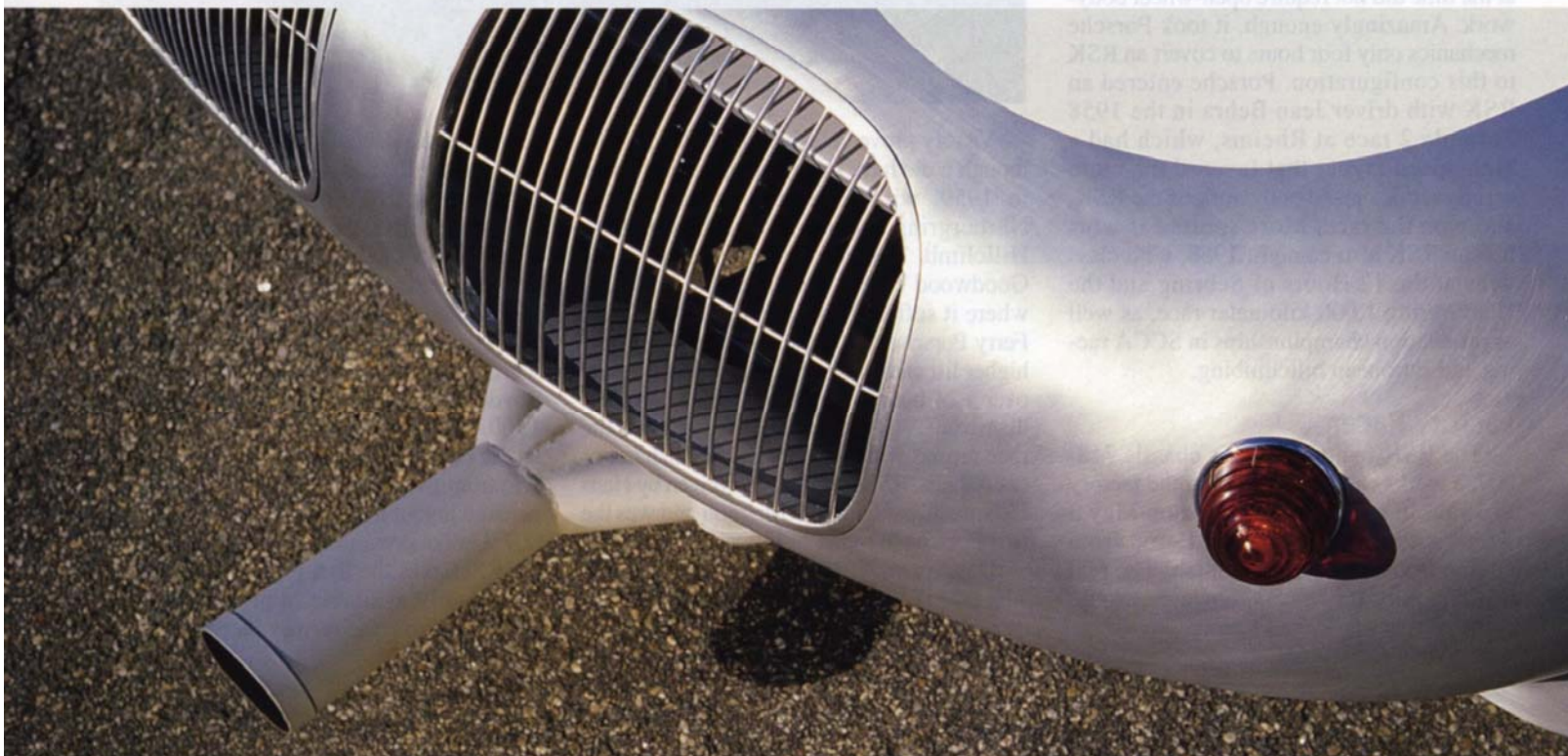


The RS60 brought Porsche another truly impressive race victory in 1960, when Jo Bonnier drove one to overall victory at the 12 Hours of Sebring. Porsche came out with the last of the Spyders in 1961 with the RS61, which had a longer wheelbase, larger wheels and a more aerodynamic nose. This car marked the last of the Spyders and was raced by the factory until 1964, when it was replaced by the fiberglass-bodied 904 coupe.

Many Lives

Ex-factory race cars often have a second life competing in the hands of privateers, and many of the works Porsche Spyders had lives that extended far beyond their factory involvement. After being raced by the works team in 1959, RSK 718-007 ended up in the U.S. and was raced for several years in SCCA competition. Steve Froines drove the car in several SCCA races in California during the 1964 season for owner Ralph Wood. He has great memories of the car. "At Riverside, there was a 180-degree turn after you climbed to the top of the esses," says Froines. "You could bring the RSK in there, kick the back out before you got to the corner, then plant your foot in the firewall and keep the tail out three feet all the way around that 180-degree corner. It was a comfortable car to drive once you got used to it. I've raced a lot of cars over the years, but I have to say the RSK is the greatest race car I've ever driven."

As the car got older, it moved from SCCA competition and hillclimbs into historic and vintage racing. David and Mary-Hoe Love owned 718-007 from 1974 until 1986. When they acquired the car, it came as a rolling chassis with 28 boxes of parts. The previous owner had modified it for hillclimbs, installing a pushrod engine and





fender flares. The Loves returned it to road-racing trim and eventually reinstalled the 4-cam engine after a lengthy rebuild. Says David, "Taking the 4-cam motor all the way down to the crankshaft and rebuilding it was a mechanically religious experience, though

I wouldn't want to go through it again. The crankshaft had 396 pieces and the tolerance on the needle rollers was a tenth of a thousandth. It was like a 300-pound wristwatch."

The Loves raced the car primarily at California tracks, including Laguna Seca, Sears Point and Willow Springs. "From what I remember, you weren't spending much time pointing straight when you were driving it," recalls David. "Driving it smoothly was a matter of getting the throttle balance and steering right, where you steer the rear with your foot and the front with your hands. The rev range on the car was between 4,000 and 7,000 rpm. Under 4,000 rpm you were lugging and over 7,000 rpm you were in danger of taking out a piston or the crankshaft. But it was an absolute delight to drive; everything worked beautifully."

David Love also raced the car in center-seat configuration, which allowed better placement of the car on the track: "In terms of balance, driving in the center-seat position didn't seem to make much difference, but it did give you more a feeling of a formula car. You could get a more precise command of your line."

In 1986, the Loves sold 718-007 to Wessel Loringhoven, who took the car back to his home in Germany and used it to com-

pete in European vintage and historic racing. The car then changed hands a few more times before being purchased recently by the Collier Collection in Florida. The Collier Collection chose Paul Russell and Company in Essex, Massachusetts to perform a complete "preservation" of the car. The instructions for preservation as opposed to restoration were a key requirement for this car, as the Collier Collection wanted to return the car to its 1959 form and retain as much of the original metal and mechanical components as possible.

Preserving History

Preserving the RSK's original metal was one of the most difficult projects that Richard Docking had ever undertaken. As the chief metal worker at Paul Russell and Company, it was Docking's job to take the RSK's body back to 1959, working against five decades of paint jobs, racing accidents and various modifications.

The first step in preservation was to remove all the paint and disassemble the car all the way down to the frame. This was in itself a difficult job, as thousands of rivets were used to hold many of the RSK's aluminum body panels together. Working with

Opposite, clockwise from top left: Steel space frame clearly visible in cockpit; fuel tank; the aluminum hood cum oil cooler was a neat idea—too bad it didn't work; 1.7-liter 4-cam flat-4 develops upwards of 170 hp; large drum brakes are a tight fit; panel holding driving lights can be removed and replaced with one sans lights when RSK is in single-seater mode.



Below: The men behind this RSK's exceedingly careful restoration, Paul Russell (left) and chief metal worker Richard Docking.

what was left of the original aluminum was also challenging, according to Docking: "With the amount of paint work the car had over the years and the very aggressive use of grinding pads that take the original metal away, there was only 50/1,000th of an inch of aluminum to start with and in some areas the car had only half of that. You have to really concentrate to manipulate a piece of metal that is that thin and has become brittle over time."

To get the RSK to its original form, Docking also had to work against his instincts

and what he had been trained to do over his career. "My motivation has always been to improve things, but with this car we needed to keep it as original as possible," says Docking. This meant using a mallet and wooden blocks on the body panels, instead of the metal working machines available in Russell's shop.

"I couldn't use the machines because they would make the car look too nice," says Docking. "I had to hold back and restrain myself, but I loved doing it. I am very much against over-restoring, and loved the thought that we were doing the right thing for this

car." Docking's expertise is evident in the finished RSK, as the car has a fantastic patina and looks like it just came from the grid at Le Mans in 1959.

The Collier Museum was equally careful with the mechanical preservation of the RSK. Although the original engine couldn't be found, a proper 1.7-liter RSK motor was sourced for the car. Paul Russell had better luck with the gearbox, finding one of the gearboxes Porsche used on 718-007 during its factory racing life. The engine was sent to Bill Doyle—one of the world's most renowned Porsche 4-cam mechanics—in Jackson, Wyoming for rebuilding. "One of the most interesting things about this engine," says Doyle, "was that sometime in the past, probably in the 1960s, someone had put the engine together out of totally new parts from Porsche. Every single part was brand-new, and I just took it all apart, cleaned everything, and put it back together in running order." Paul Russell also made sure that items such as bolts and hoses used in the engine were as they would have been in 1959, even if it meant fabricating new pieces to match the originals.

After two years of painstaking research and preservation work, Porsche Type 718 RSK chassis number 718-007 is as close to original as it has been since the 1959 racing season. The Collier Collection plans to use the car for exhibition runs and display—it was on display at Porsche Rennsport Reunion II—but may consider running the car in historic races in the future. With the attention to detail that went into this car's "preservation," those that get to see 718-007 in person can be assured they are looking at a real piece of history—one from the early days of Porsche racing. ●

