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**Porsche at Daytona**



**Market Update:  
Early 911s**



**Rare 356  
Racer**



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# The Magazine About Porsche excellence



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# 356 Six

*This 356 packs the punch of a 911S.*

*By Nina Padgett.*



PHOTOS: BOB SCHNEIDER

**E**rich Wilms had nothing against his 1957 Speedster. It was a joy to drive, but a bit more power would definitely raise the fun factor. Options included raising engine compression, installing larger pistons, or substituting performance cams.

But pushing the four-cylinder powerplant to the edge only gets you so far — and perhaps not far enough. And then there was the matter of modifying a beautiful, desirable Porsche. When Wilms read an article about a 911-powered 356 cabriolet built by Jim Rinker, it provided the inspiration for a different approach — six cylinders.

Wilms met Rinker sooner than later, when a series of coincidences brought Rinker into Wilms' Diversified Tool &

Die Company one day. Rinker, who entered the car restoration business fresh out of college, had been referred to Wilms by Jerry Hjeltness, who also owned a restoration shop in the area. When Rinker showed up at Diversified one morning needing help in fabricating flat springs, he got a royal welcome from Wilms, who was eager to learn more about the conversion.

The impetus for Rinker's 356 engine conversion was his frustration with the reliability problems in modified 356 motors. Rinker had figured out that he could stuff a 911 engine into his 356 by swapping the stock fuel injection for Weber carburetors with custom, low-profile air cleaners. Everything would still fit under the stock decklid.

But that wasn't all. Rinker didn't like the Karmann hard top his 356 came

with, so he removed it. He converted the windshield posts, had some brackets fabricated, and picked up a set of soft-top bows. He also swapped the transmission and rear suspension for 911 parts, and rounded off the rear end of the car with an early Carrera valence, just to keep the whole package aesthetically pleasing.

Wilms was enthusiastic about the possibilities, and decided to enlist Rinker to help him build a 911-powered 356 of his own. It wasn't long after their chance meeting that both Wilms and Rinker were looking for another 356 Karmann notchback for the project they would collaborate on.

"We chose the notchback because the car, in stock form, isn't very popular among collectors," explained Wilms. "That meant that we could get it



at a much better price than a cabriolet. Since this particular model is essentially a cabriolet with a hardtop welded on, it already has the proper doors and rear panel of a cabriolet. That makes the conversion a much easier proposition than it might be had we chosen a different type of coupe." A 1962 model was located in Cave Creek, Arizona.

The 356 would end up spending a lot of time in Rinker's shop. Rinker would carry out the majority of the bodywork, construction, and finishing work on the conversion. But Wilms was a regular sight at the shop, helping with the grunt work as well. Rinker is quick to point out Wilms' unique contribution to the project — his ability to design and fabricate special parts whenever the need arose.

"If we needed a special bracket — for example, to mount the 911 engine — he could make it," Rinker comments. "Erich was able to come up with a solution for installing shoulder harnesses in the car without them looking awkward, to build in a state-of-the-art stereo which is almost invisible to the eye, machine the half shafts, and create the hardware we needed to perform the hardtop to soft top conversion. He was also willing to do a lot of the legwork, to chase down

■ **Above**—An original 2.4-liter 911S engine was rebuilt to factory specifications by Stoddard. The mechanical fuel injection was replaced by Weber carburetors with low-profile air cleaners that clear the stock decklid.

■ **Opposite, top**—A new subframe was created to mount the 911 engine properly, which required removal of the rear bodywork.

■ **Opposite, middle**—911 rear suspension and brakes were adapted to the 356, mounting a set of 15x7 Fuchs with wide Michelin rubber.

■ **Opposite, bottom**—Interior is a blend of authentic restoration and modern amenities. 911S sport seats and a vintage Carrera wheel add flavor.

the engine and other parts that we needed in the process."

But the first step was to strip the car bare. Wilms sent the car to Aase Brothers to have it walnut shell blasted. When it returned, he and Rinker removed the rear panel and fabricated mounting points for the new motor.

Jim and Erich removed the Karmann hardtop from the body. The removal of the top eliminated any easy mounts for three-point belts, something Wilms wanted. Instead, he used a shoulder harness kit from Professionally Engineered Products of San Luis Obispo in conjunction with seatbelt components his company manufactures for Toyota Celica convertibles.

Wilms located a 2.4-liter 911S motor at Stoddard Imported Cars. Before installing the engine, he and Rinker

prepared a 901 five-speed transmission for installation. Fitting the newer transmission to the older chassis was a bit of a challenge. New mounts had to be made, suspension hardware had to be cleared, and many custom tricks were required to get the transaxle to work in the way that Wilms wanted it to — seamlessly.

Jon Bunin, who spends his days working on Swift Indy cars, rebuilt the 901 transaxle and made modifications to help it get the engine's increased power output to the ground. A factory limited-slip differential was installed, and Wilms machined new splines on the output shafts so that later-model half shafts could be used.

The installation of a 911 engine and transmission in a 356 has been done before, but the difference with this car

is in the details. According to Wilms, "It mostly bolts up, with some machining." But the "some machining" is what makes all the difference. Wilms admits that he never would have done the project if he hadn't had access to the machining and design equipment in his own shop. "If someone came in the door asking to do some of this stuff, I'd send them away," he laughs.

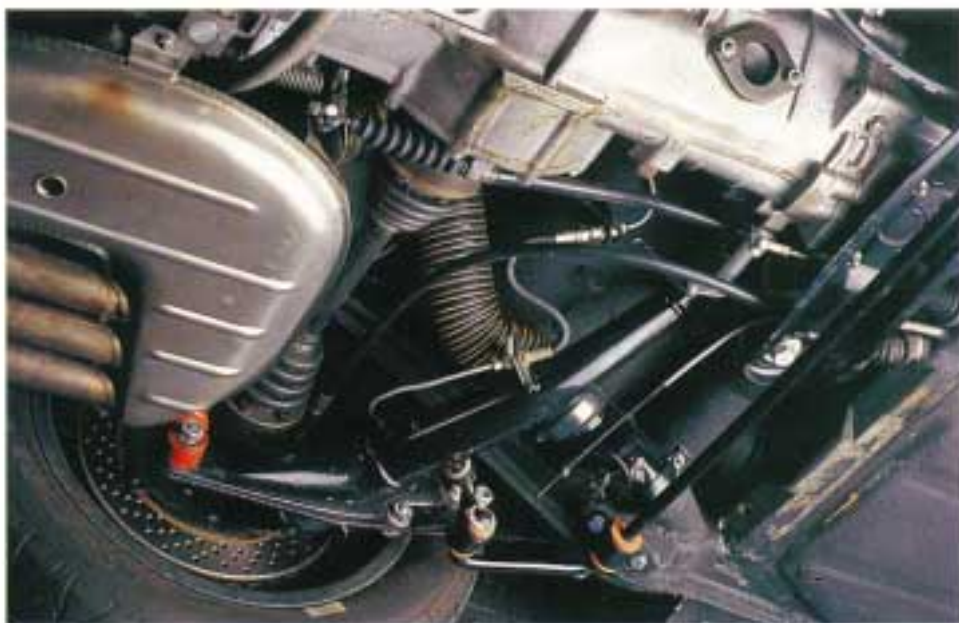
While the suspension brackets were welded in, the torsion bars had to be shortened — not an operation for the inexperienced. Wilms used early 911 rear suspension control arms. He also modified European heater valves to install a functional heater in the manner which the factory would have used. The transmission mounts had to be machined, and the list goes on.

Examining the workmanship while the car is on a lift, it's tough to tell that it's not a factory car. The workmanship was so impressive to one enthusiast that he offered a Twin Turbo in trade after Wilms refused all of his cash offers.

Doubling horsepower in any car requires brake and suspension work. While Wilms kept the front suspension largely stock (with the exception of Koni shocks), the rear is all 911. Torsion bars from a 1980 930 were selected for their ability to compensate for the added weight, and Sway-Away adjustable spring plates were notched to fit — with Wilms doing the machining. Fuchs wheels, sized 15x7 all around, mount 205/50VR15 Michelin Sport XGT tires.

"I encouraged Erich to go with 15x7-inch wheels and tires for better handling, even though it would mean stretching the rear end of the car," said Rinker. "Erich was concerned about appearance, so rather than cutting the wheel wells, I stretched them out about a half-inch on either side. I cut the bumper and made metal darts to fill, and we machined the wheels to fit."

The brakes were upgraded to 911S-spec all around. The ventilated discs were mounted to 356 C spindles, which are already set up for disc brakes. The 911 calipers bolt right on, but the discs had to be machined slightly to reduce their diameter. The relocated caliper sits a bit closer to the center on the 356 spindle. The rear 911 brakes, of course, fit right onto the 911 suspension. After all of this machining, Erich went one step further and drilled the rotors himself — after all, why pay someone else? Rinker





■ *With the exception of the 911 alloy wheels and a subtle muffler, the tail of the 356/911 gives few clues as to what lurks under the engine lid.*

fabricated the brake lines, and used an Ate 19 mm master cylinder.

The exhaust proved to be one of the biggest hang-ups in the conversion. Neither Jim nor Erich's talents helped here. Getting it right took a few tries.

"The first exhaust we had made utilized a muffler I designed, and we had a local fabricator build it. The car was so loud that I really didn't enjoy driving it," explains Wilms. He ended up hiring B&B Fabrication in Phoenix to do the design and installation.

"Originally, B&B was hesitant to get involved in a project that required so much custom fabrication, but when they saw the car, they thought it was so neat that they were willing to make the time investment."

Besides stretching the fenders, modifying the rear panels for the larger engine, and converting the bodywork to accept a soft top, Jim Rinker did the majority of the final body preparation and then sprayed the car with rich black paint. The result is a stunning, mirror-like finish. Even here, however, Wilms was involved, taking things home like headlight buckets to restore them himself.

Wilms wanted a special interior, and set about locating all the right pieces. He found a pair of Recaro seats originally intended for a 1972-73 911S. He sent them, along with the rest of the interior to Autos International. The wood Carrera steering wheel from NLA Limited gives the interior a clas-

sic feel. The vinyl door thresholds come out of an early Carrera and the leather side pockets in the doors are from a 1962-63 Roadster.

Engine conversions require different gauges, and the easy way is to mount 911 units. Wilms, however, wanted his gauges to not only look correct, but to be functional as well. After making his own gauge face with three openings, he sent it to North Hollywood Speedometer, who then created a triple gauge similar to a 904 (oil pressure, temperature, and fuel) around the plate. They also modified the tach to match the 911 motor, and revised the speedometer, which now reads to 160 mph. The car alarm's red blinker is wired into the center of the tach, so that it looks unobtrusive.

Not content to leave the engine to sing a lonely melody, Wilms installed an extensive stereo system. "I wanted the dash to look clean and uncluttered, so I designed a bracket with a removable face for the stereo with the CAD system at work," he explains.

The hinged bracket, which mounts to the dash without drilling any holes, allows the faceplate of a detachable-face stereo to remotely operate the Pioneer head unit it came from. A multi-pin wire connector connects the contact pins that the face once used to interface with the stereo. It swings up under the dash when not in use.

"The radio sits behind the glovebox. I removed the stock glovebox and

replaced it with a shorter box. I flocked the new glovebox so that it would look like the one that came from the factory. Our shop machined the tweeter pods. The amps are mounted under the floorboards on the passenger side, and a CD changer is concealed under the passenger side seat."

The finished Cabriolet, which was four years in the making, is classic Porsche through and through, with comfort, safety, and performance like a much newer car.

"The '72-73 2.4-liter motor tends to be a little bit temperamental with carburetors," said Rinker. "It's a peaky motor that runs well at 5,000-7,000 rpm. With the radical cam, it tends to sputter at idle. But the neat thing about it is that it's a race motor which you can cruise through town with. And with the right exhaust, it makes a great, throaty sound."

In January, Wilms flew to Arizona to pick up the 356 and drive it back to San Diego. "Erich was a little uneasy about the road trip," recalled B&B's Rob McPherson. "But those emotions disappeared quickly when he got in the car at the airport. He immediately put his foot into the throttle and went roaring through a tunnel full of cars. The speed, plus the sound from the exhaust note scared the wits out of the drivers around him, but he was oblivious to that."

Erich's verdict on the finished 356/911 project confirms his delight. "This car has been in the project stage for so long that I forgot how much fun it would be to drive." ■