

The Gemballa

• A marvel of evolution

by Mitchell Sam Rossi PHOTOS BY LES BIDRAWN



The Theory of Evolution: ...all species arise and develop through the natural selection of small, inherited variations that increase the individual's ability to compete, survive, and reproduce....

Here you have it. The Porsche Porsche doesn't want you to want. Fast, sleek, a soft-topped, two-seater cradling enough power to press you decisively into its leather seats. A sports car doing exactly what a sports car should do.

But this particular Boxster S didn't roll off the Porsche assembly line, at least not in this form. It is a mix-and-match blend, a utilitarian exercise where the parts truly benefit the whole. And the main accessory, a stock 3.4-liter 996 motor, is right out of Stuttgart's own parts bin.

Boxster S



The Gemballa Boxster S

"The Boxster S is an extremely good car for this conversion," said Heinz Meis, owner of Gemballa North America, the U.S. distributor for Gemballa, a German-based and long-time Porsche specialty tuner.

The project car, a silver Boxster S was purchased by one of Meis's clients in Texas and delivered with only 200 miles on the electronic odometer. "He wanted something really fast," Meis said, explaining that his client owned a 996 Cabriolet but wasn't satisfied with its performance.

And there lies the dilemma. The Cabriolet, while an exceptional car, seems to have lost a bit of soul during its last evolutionary step. But slip its watercooled 3.4-liter engine into the decisively better balanced Boxster S and it is Darwinism at

its best. Two similar creatures struggling to fill the same niche.

Meis immediately turned the Texan's car over to Claudio Szyszkowski of Foreign Sport Technician, a European automotive shop in Santa Monica, Calif., and the only one trusted to build Gemballa North America's special cars.

Involved with a previous conversion that tucked a 3.4-liter motor in a standard Boxster, Meis was less than satisfied as the car's stock components had trouble utilizing the increased horsepower. The top-of-the-line Boxster, however, seems ready-made for this transformation.

"The Boxster S has the upgraded cooling system and suspension, but what is really important is the six-speed gearbox," Meis stressed. The gearbox, standard equipment on the Boxster S, is the same manual transmission for the 996.

Another advantage to the upgraded model is the S comes from the factory sporting the Carrera's power-assisted, four-piston, aluminum calipers and cross-drilled discs. Thus, there was no reason to change such a well-proven commodity on a car which weighs 200-lb less than the 996 Cabriolet.

The engine swap, unfortunately, wasn't as straightforward because the dimensions of the two motors are not exactly the same. While the 996 intake system is designed to fit under the snug rear deck of the Carrera, the Boxster's engine bay is limited by the retractable roof.

Add that to the fact the 3.4 liter had to be installed backwards. The Boxster, after all, is mid-engine with the gearbox lounging aft. Luckily, these hurdles were addressed during the first Boxster project. While an assortment of lines, hoses and cables had to be re-routed, all that was needed was to lower the engine and transmission about an inch with specially fabricated mounting blocks.

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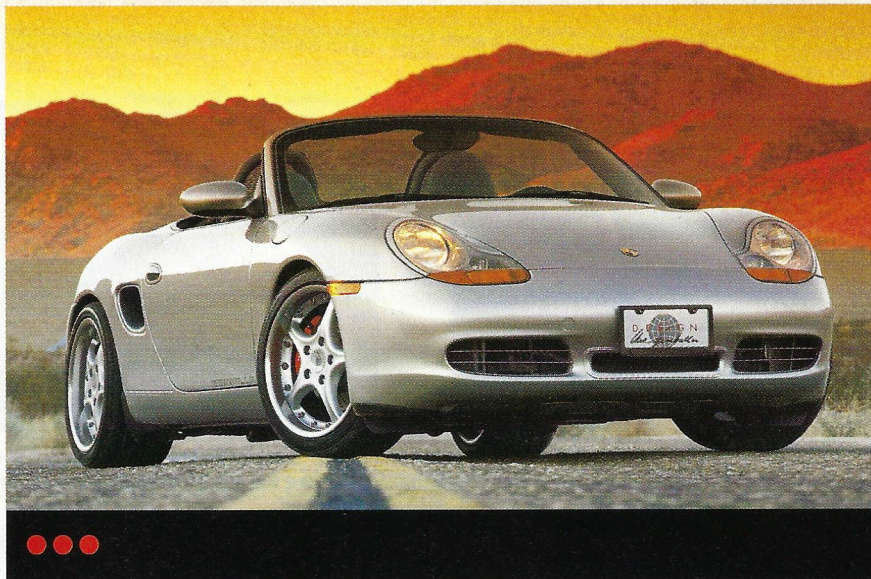
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Another lesson learned from the previous conversion was to retain the car's original Motronic Electronic Control Unit (ECU). In the first exercise, Meis's technicians struggled to make the 996 ECU function with the Boxster's circuitry. This time around, Meis decided it would be simpler to program the car's brain to work with the new motor.

Simple is a relative term when tinkering with automotive computers. Meis called upon Gemballa's European office to send its electronics wizard, Gunther Mandl. A master at re-coding the Motronic ME 7.2 system, Mandl calibrated the car and engine into a seamless package. For his Texas client, however, Meis knew making the car run properly wasn't going to be enough and hoped to get a bit more kick out of the 3.4 liter.

In this age of computer-assisted designs, most high-performance engines are developed at their physical limits from the outset.



Finding more power is no longer a mechanic's job but that of the programmer. Thus, Meis relied on Mandl to modify the engine management system for as much performance as he could.

Gemballa's larger, stainless-steel exhaust system was also bolted to the motor. "What we did was add our custom headers, which are larger. We also modified the exhaust piping. If you use the original Boxster exhaust, you don't get the full potential out of the engine," Meis explained.

To keep the exhaust system free-flowing, a high-performance catalytic converter

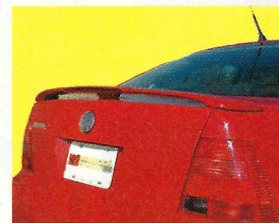
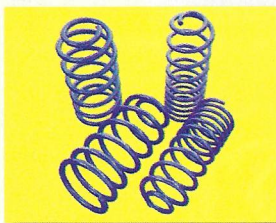
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replaced the stock unit. Addressing the question of smog certification, it was never a concern for the new 996 engine, but to be certain, Meis had the car tested and it passed without a problem.

Altogether, Szyzkowski estimated the final package bumped the stock 996's horsepower to nearly 320 horses. "We didn't have a chance to put it on the dynamometer," he admitted, adding that 3.4-liter motors similarly tuned by Gemballa mechanics in

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Germany produced between 315 to 320 bhp. "If you drive the car on the street you know it is very powerful."

Meis concurred. "The car is a rocket ship," he grinned, stating it had been clocked 0 to 60 at a shade over 4.5 sec., almost a full second faster than the 996 Cabriolet.

Cruising the back roads of California's high desert we never had the chance to test Meis's claims, but time spent in the Gemballa Boxster S did prove it to be an impressive canyon cutter. The inherent balance of the Boxster S saddled with the potent, easy-breathing powerplant delivers instant gratification to the driver.

With the right foot to the floor, the acceleration is quick and effortless. It is not a dragster, but compared to a 996 Cabriolet, the Gemballa Boxster S feels spry and nimble. And when the tachometer needle reaches its upper arc and sweeps past 3500 rpm, the exhaust note deepens and the power comes on exponentially.

But it is on the long wandering roads that the Gemballa Boxster S flaunts its wares. To aid the mid-engine's already exceptional handling, high-performance H&R springs were slipped under each corner dropping the Boxster S by a full inch. The Texan's car also received Gemballa's lightweight 18-in. competition wheels wrapped in massive Yokohama AVS Sport rubber, 285/30-ZR18 and 225/40-ZR18, rear and front, respectively.

Outwardly, save for the acreage of tread bearing on the pavement, the Gemballa Boxster S retains a clean, understated look. No aerodynamic kits, flamboyant fenders, headlight covers or high riding wings. It has no need for them.

The price tag for this German brew? A Gemballa car will set you back \$70,000, not counting wheels and tires. As a new 996 Cabriolet withdraws nearly \$80K from your ATM and a Boxster S runs in the neighborhood of \$50K, the Gemballa rendition may not seem like a bargain. But if your heart is set on a lively two-seater, your money can hardly be better spent.

If Gemballa's conversion reveals anything, it is that even greatness can be improved upon and that the theory of evolution is alive and well in the automotive world. ❧

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