

987

BOXSTER
SPYDER

DESIGN
LANGUAGE OF
SPEED AND GRACE

THE FIRST BOXSTER SPYDER IS SLEEK, SPARE, AND PURPOSEFUL.

STORY BY **RYAN CARIGNAN** PHOTOS BY **MICHAEL ALAN ROSS**





Artists and designers have long used fast shapes to fool the eye, giving objects a sense of motion even when stationary. The automobile and aviation industries use these principles and actual aerodynamics to create objects of desire and wonder. Porsche's design language has tended to borrow from the functional side, but it has made for no less beautiful results, as cars like the 904 Carrera GTS, the 906, and the 987 Boxster Spyder attest.

Forced-induction super- and turbocharger technology, which had initially been developed for motor vehicles, quickly found its way into airplanes during aviation's early days, and technological improvements made in aircraft logically made their way back to earth to benefit the auto industry. Then came the sleek "jet-aged" styling of 1950s American manufacturers, where advances in aviation had radical influences on almost every car design.

Cars and planes have a long history of influencing each other. And while the two white beauties on these pages are from different eras and were conceived for different ends, their form-follows-function designs resulted in similarly beautiful performance masterpieces.

THE 987 BOXSTER SPYDER dropped on the Porsche public at the 2009 Los Angeles Auto Show. At the time, the Spyder's lightweight measures were what garnered headlines from most car magazines, but what many of us saw was a car that looked like it was going 100 mph while standing still.

The second generation of the 987 platform introduced incremental evolutions to design, material, and performance per Porsche standard operating procedure. The Spyder variant took a beautiful design and turned it up to eleven. The car was impressive to look at, with more than a few hints of the exquisite Carrera GT with the visually sharper intakes up front and the





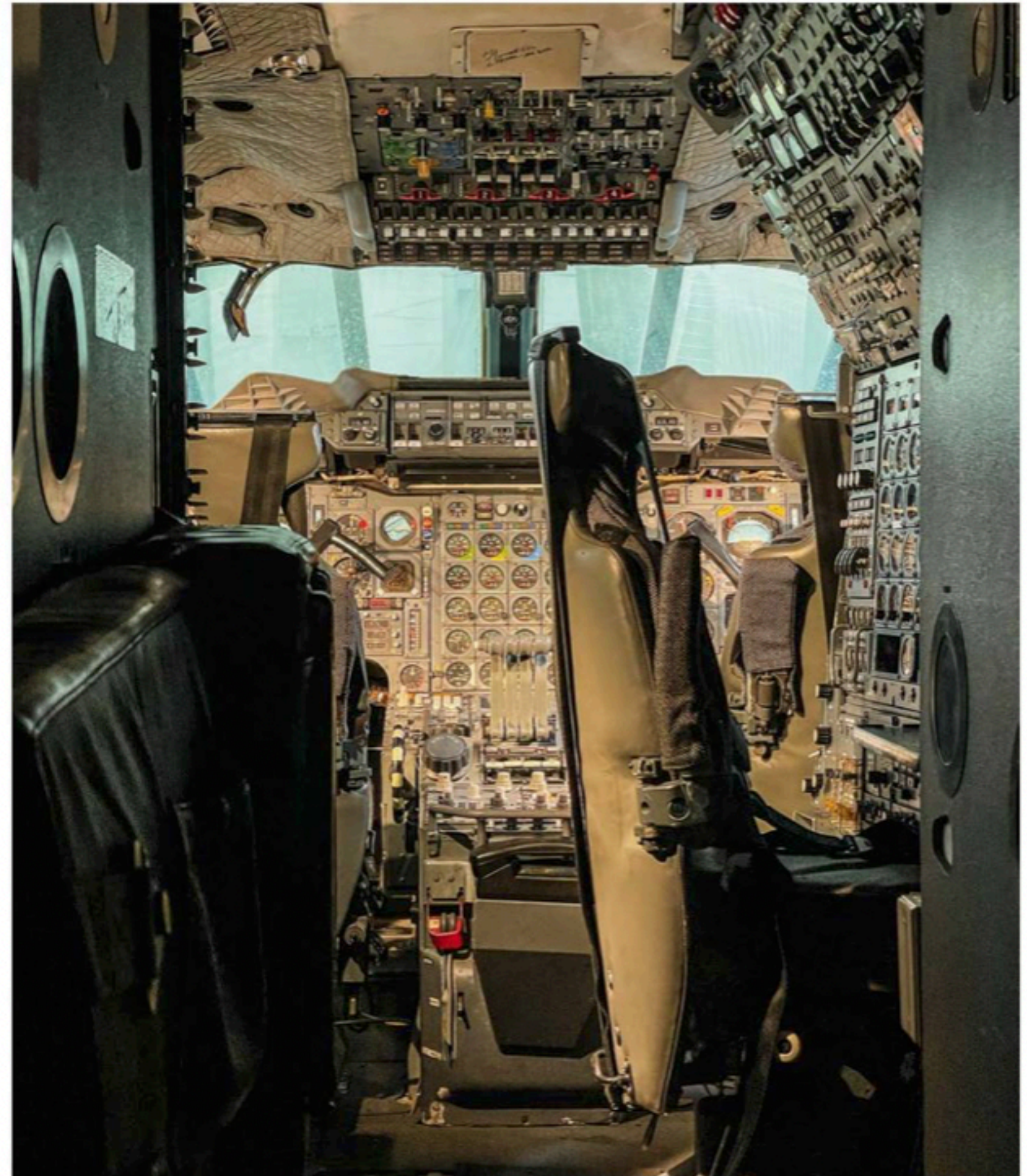
unique sculpted decklid in the rear.

It's commonplace to expect a GTS, GT spec, and maybe a special edition or three of every Porsche model these days, but that wasn't always the case for the mid-engine Boxster/Cayman siblings. Porsche blessed the 987 with the Limited Edition, Design Edition, and Design Edition 2 series cars, but even the most ardent fans (author included) would admit these represent mostly cosmetic treatments. While Porsche doled out a handful of extra horses in some cases, these editions did not conjure the level of "different" brought by the Boxster Spyder.

Interior changes to the Spyder may seem minor, but the lack of an instrument hood plus fabric door pulls and a body-colored console speak to the spirit and purpose of this focused machine.

The Spyder separated itself by its styling, interior appointments and options, power, suspension, performance, and, most importantly, ethos. It was a callback to Porsche's early cars, when light weight and simplicity ruled above all else. That is an excellent and romantic notion, but something challenging to produce in modern vehicles with lists of mandatory (for good reasons) safety equipment and features. A stripped-out racer for the road in the 1950s and '60s was very different in 2009—and even more so today.

At its debut, the Boxster Spyder was the lightest



The Concorde's seats are hardly luxurious compared to today's business class, but the champagne and caviar service was. A "bumper gear" helps prevent tail-strike damage during takeoff or landing. What a wonderfully analog cockpit.



car Porsche had produced in decades, with an official weight of 2,811 pounds. Impressive as that number is, it's some 1,600 pounds heavier than its spiritual predecessor, the 550 Spyder. Still, the 987 Spyder was 176 pounds lighter than the standard Boxster S, but achieving that number required deleting the radio and A/C, something few realistic buyers chose to do. Yes, in its purest form, one would opt to be cooled by the air rushing around the slightly more raked windshield and entertained solely by the sonorous flat six and squealing tires. The reality is that even the biggest convertible fans would occasionally like some cool air blowing on them and some tunes to listen to while cruising.

Real-world weight savings came down to the use of

Shorter windows tuck into the steeply raked sunshade top, while the view from behind is all sinuous curves and flowing lines. The spoiler integration is reminiscent of the gracefully blended wing and fuselage of the Concorde.

model-specific lightweight wheels (10% lighter), aluminum doors and rear decklid (which saved 33 pounds and 6.5 pounds, respectively), standard bucket seats (26 pounds), fabric door pull latches that were a direct nod to Porsche's heritage (4.4 pounds), and an optional lithium-ion battery (22 pounds). Then there is the top, with a substantial 46-pound weight savings over a traditional convertible mechanism.

NO STORY ABOUT the Boxster Spyder could be complete without at least a brief mention of the top. Yes, it is a bit of an erector set bikini-style top with a whiff of old British roadster. It makes you wonder why Porsche couldn't emulate the lightweight, manual, and straight-

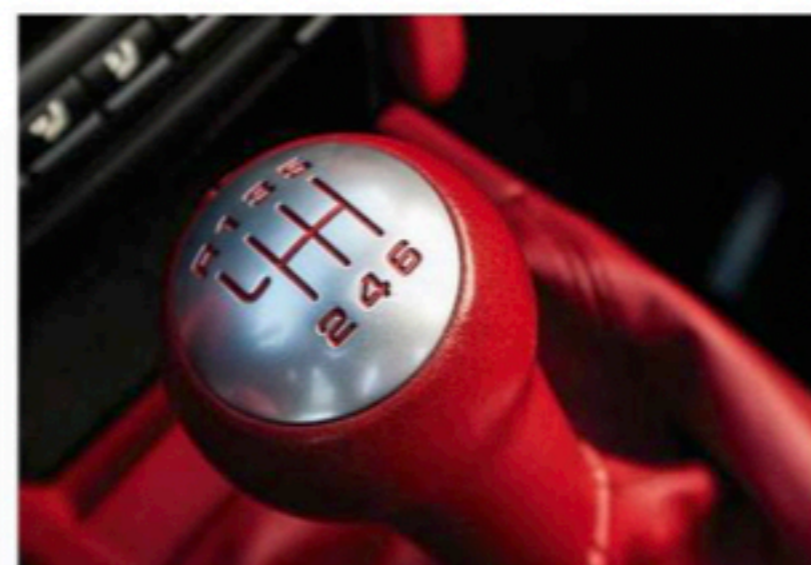
forward top of the Mazda Miata. But it works, mostly, and this car was not designed to be daily-driver friendly. The Spyder is a car you buy out of desire, not need.

Seeing as this is the Design Issue, we won't delve into the 15-step process of installing the Spyder's top. Nor will we discuss the several minutes it takes, the hope that you have a friend to help, or "are those raindrops on the windshield" panic that goes with it. Instead, we will focus on the top's style and design, which it aces.

Most convertibles are beautiful and stylish with the top down and just sort of *meh*, at best, with the lid raised. While beauty is in the eye of the beholder, the Boxster Spyder looks pretty sexy with the sunshield installed. The integration of the top with the car's shape is excellent, and the way it attaches at two points behind the driver gives a rake that matches the vehicle profile and complements its shape in a way few convertible tops do. Even the windows are lighter and lower than a standard Boxster to accommodate the Spyder's sleeker profile. Spyder owners can still enjoy long road trips, like to the annual Porsche Parade, with both roof sections installed.

Another aspect of the Spyder's design magic is its 20mm lower sport suspension, stiffer springs, anti-roll

An instrument panel can appear overwhelming, but a speedy cross-check is quickly developed with practice. Analog gauges and controls just work, whether in airplanes or performance cars.



bars, and retuned dampers. All of this combines for a car with a center of gravity 25mm lower than a Boxster S and handling performance that matched that of the Ferrari 458 Italia during *Motor Trend's* skidpad testing.

DID WE MENTION that the Spyder is strikingly gorgeous? Look at the photos on these pages; it's a stunner. While only a few exterior colors were available, they all look fantastic. One of the signature touches on the front of the car is the use of titanium color trim around the headlights and air intakes, along with a single vane instead of two. These changes don't seem like much on paper, but they significantly alter the car's presence, giving a much sharper, more aggressive face. But it is the rear of the vehicle where the style department earned its paycheck.

The "streamliners," as Porsche calls the humps on the lightweight decklid, are enough to earn the car its place in Porsche history. The curvilinear shape is arguably one of the best designs of the period. The way the stylish decklid integrates with the fenders and blends wonderfully into the taillights is splendid. Even the mandatory third brake light is a triumph of design that could have easily seemed tacked on but instead is handsomely integrated.

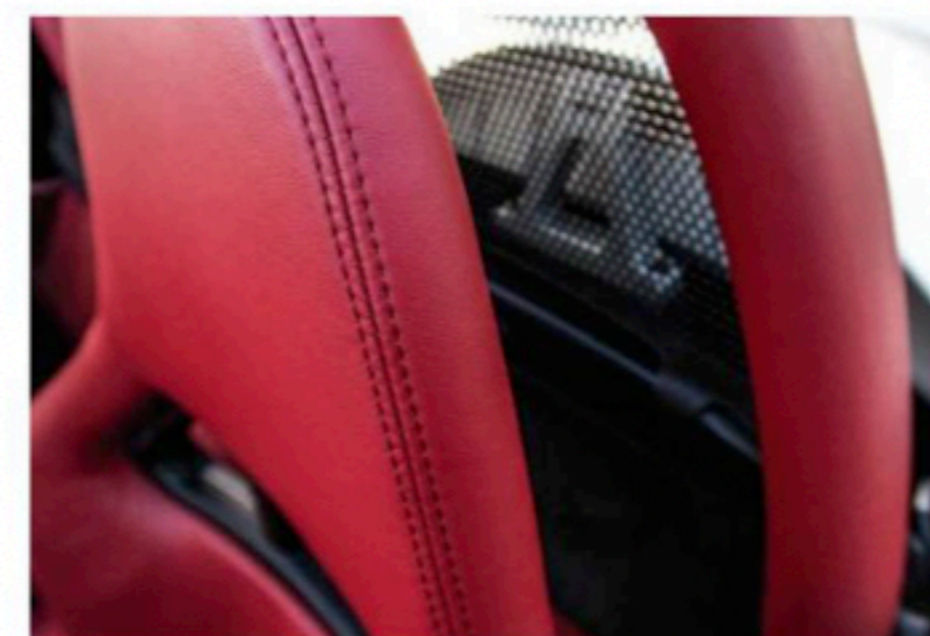
Then the fixed ducktail spoiler and revised rear

Carbon sport seats are lightweight and purposeful even when wrapped in luxurious red leather. Titanium accents on the headlights and intakes are small details that provide so much character.

fascia tie everything together to create a masterpiece. Changing the spoiler treatment from the standard mechanical version to a fixed but elongated ducktail transforms the entire shape and presence of the car.

Near the cockpit, the wind deflector is one of the best iterations on the market, as it doesn't detract from the design and masterfully reduces wind buffeting. The art of sculpting, or inserting, a shape to influence and direct airflow is another benefit auto designers have learned from their aviation counterparts.

The 987 Boxster Spyder was, on paper, another exercise of Porsche offering less and charging more. But the sum of those parts, lighter or fewer in number though they may be, is something that adds up to much more, as anyone who's ever looked at or driven a Spyder can attest. With two successors to the idea in the 981 and 718 Spyders, it is evident to us now that the folks at Porsche were on to something when they decided to create a lighter, more analog, and more engaging Boxster. The 987 Boxster Spyder is a design that took inspiration from Porsche's past and thrust it into the future to create one of the most memorable and beautiful cars in Porsche's history. In short, its design made it an instant classic. 🍷





Flight of the Concorde

TIME. One of the modern world's driving motivations is finding a way to maximize your time. In the 1950s, several groups began studying the possibility of supersonic transport, or SSTs, for use in commercial aviation. The intent was clear: to save people time. There were several types of supersonic military aircraft in that era, but none of them were of a suitable design for passenger flight.

A partnership between England and France eventually resulted in the development of one of the most memorable and graceful aircraft designs in the world: the Concorde. Producing a large plane that could efficiently operate at supersonic speeds and remain controllable at slow speeds was challenging. The result was an exquisite design that remains unique to the Concorde in its "ogival" wing form.

While some aircraft, such as the F-14, F-111, and B-1B,

solve the problem of slow- and high-speed stability with a movable swing-wing design, the Concorde used a slender ogival delta wing. This incredibly complex design used the speed advantages of a delta wing, allowed for fewer moving parts, and increased slow-speed stability in the critical phases of flight. Achieving the optimal design for the wing required more than 5,000 hours of wind tunnel testing to modify the camber, droop, and twist of the wing's shape to achieve the desired flight characteristics.

The wing worked because it created vortices (swirls of air) that traveled up the aircraft's fuselage, making "vortex lift" for the front of the airplane at high angles of attack. The required nose-high flight attitude necessitated a movable nose cone to allow pilots to see the runway during takeoff and landing. To achieve the desired cruising speed of Mach 2 (1,350 mph at



DETAILS PHOTOS BY MICHAEL AMAN ROSS



PHOTOGRAPH BY MICHAEL AMAN ROSS



Concorde's secondary engine nozzle featured a hinged-bucket or clamshell design used to efficiently direct exhaust and serve as a thrust reverser to aid deceleration in flight and upon landing.

altitude) and higher, the Concorde used four Rolls-Royce afterburner engines producing over 38,000 pounds of thrust each.

Your vision of supersonic flight probably comes from the masterpiece film adaptation of Tom Wolfe's *The Right Stuff*. In reality, breaking the sound barrier is relatively uneventful to the airplane's occupants. The jet doesn't buck or shake like Chuck Yeager's Bell X-1 in the movie. Instead, it's rather graceful and, dare I say, a non-event.

During my career flying the B-1B, I've been supersonic more times than I can count. There is no sonic boom heard inside the jet. Other than a slight "tuck" of the nose as the plane hunkers for more speed, the only way the crew knows they have "gone super" is the airspeed indicator. When the readout begins with 1.XX instead of the usual 0.XX, you're supersonic. The Concorde was no different, which is why the passen-

Conical vortices created by the ogival wing are seen as vapor clouds along the wing's leading edge. The elegant wing design was not only key to the Concorde's success, it is also absolutely beautiful.

ger compartment featured a large airspeed display to inform everyone they were traveling faster than the speed of sound.

While supersonic flight isn't much of an event to those inside the plane, it's very noticeable to people on the ground. An aircraft's altitude and size influence the size and duration of the sonic boom; the lower and larger the plane, the more significant the boom. The Concorde was much larger than fighter-type aircraft, and its sonic boom was about five times that of a single-seat fighter. Because of that, it was restricted to subsonic speeds over land, which is a significant reason that mass adoption of commercial SSTs didn't catch on. Several companies are currently developing new SSTs that take advantage of contemporary design and material technology to make sonic booms less impactful while making the plane more fuel-efficient. We'll see where the future takes us. —RC



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