

ROADS
TO
Taycan



CHRI
STO
PHO
RUS
EDITION

ROADS
TO

Taycan

PHOTOS BY
CHRISTOPH BAUER

CHRI
STO
PHO
RUS
EDITION

Road map

WEISSACH
2015

KAUNERTAL
2019



4

Lapland
SWEDEN

86



6

Nürburgring
GERMANY

138



1

Weissach
GERMANY

8



5

Shanghai
CHINA

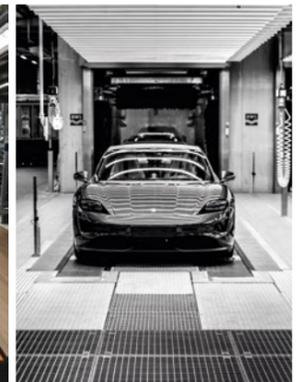
106



7

Zuffenhausen
GERMANY

152



3

Nardò
ITALY

62



2

Upington
SOUTH AFRICA

30



8

Kaunertal
AUSTRIA

164

Fuel and electrical consumption data plus CO₂ emissions for all models mentioned are found on the last page.



Prelude

"As early as 2015, the Mission E study had defined our high expectations, which the Taycan's standard model has now, four years later, exceeded."

Michael Steiner, Member of the Executive Board for Research and Development, Porsche AG

48°
50'
48.581"
N
8°
54'
10.634"
E

Weissach

GERMANY

The genesis. There are no predecessors, no role models for the Taycan. There are just two guiding precepts at the outset of the development process: The Taycan will be 100 percent electric. And 100 percent Porsche. Emotion without emissions. The technology can be calculated. The driving pleasure only experienced. When the two start to coalesce, thus begins the age of the prototypes. The time of testing.

Early 2017. The first Taycan are hand-built. Sketches, models, and seating bucks become bodies, cockpits, and ambience. Design meets technology. The prototype construction department in Zuffenhausen is the birthplace of every new Porsche model. The 800-volt technology of the first purely electrically powered Porsche, its battery system, the complex cooling system: What the designers in Weissach imagine for the Taycan is translated into initial test cars by the specialists in Zuffenhausen in the closely guarded prototype construction department.

But life really begins at the Weissach Development Center. The first stress tests for components and vehicles. At one and the same time. The electric drive units test their limits on the test

benches for high-performance engines. In the wind tunnel, merciless storms rage around and through the body, helping the aerodynamics experts carve the Taycan down to a drag coefficient value of 0.22. In the first test vehicles on the track at the development center, do they step on the gas—or amperes? They do it in unaccustomed silence, at any rate. There is no snarl and growl of a 911 GT3. A Taycan bolting through the corners with nary a sound, by contrast, is quite a novelty. The future on its way to the present.

The track is demanding, conceived and built for racing machines and sports cars. Every Porsche must submit to this trial by fire. Without complaint. On those six laps, no Taycan prototype may demonstrate weakness in its drivetrain or performance. A hurdle that must be cleared by the four-door Porsche models as well. At breakneck speed. There is, after all, a race car in every Porsche. In the Taycan, it is a heady portion of the 919 Hybrid. The World Endurance Champion and Le Mans winner did its first fast laps here as well. Those that pass the test can make their way to the world. The Taycan first conquers the rural roads around Weissach. The story has begun.









Coasting

"The drag is sensationally low. When you let off the gas, the car just keeps rolling—even at high speeds."

Robert Meier, Project Leader
Complete Vehicle Taycan







Finale

"Everyone has invested a lot of energy and elbow grease. In the end you're absolutely proud of what you've accomplished."

Bernd Propfe, Project Leader Platform Taycan

66°
1'
1.591"
N
17°
59'
56.540"
E

Lapland

SWEDEN

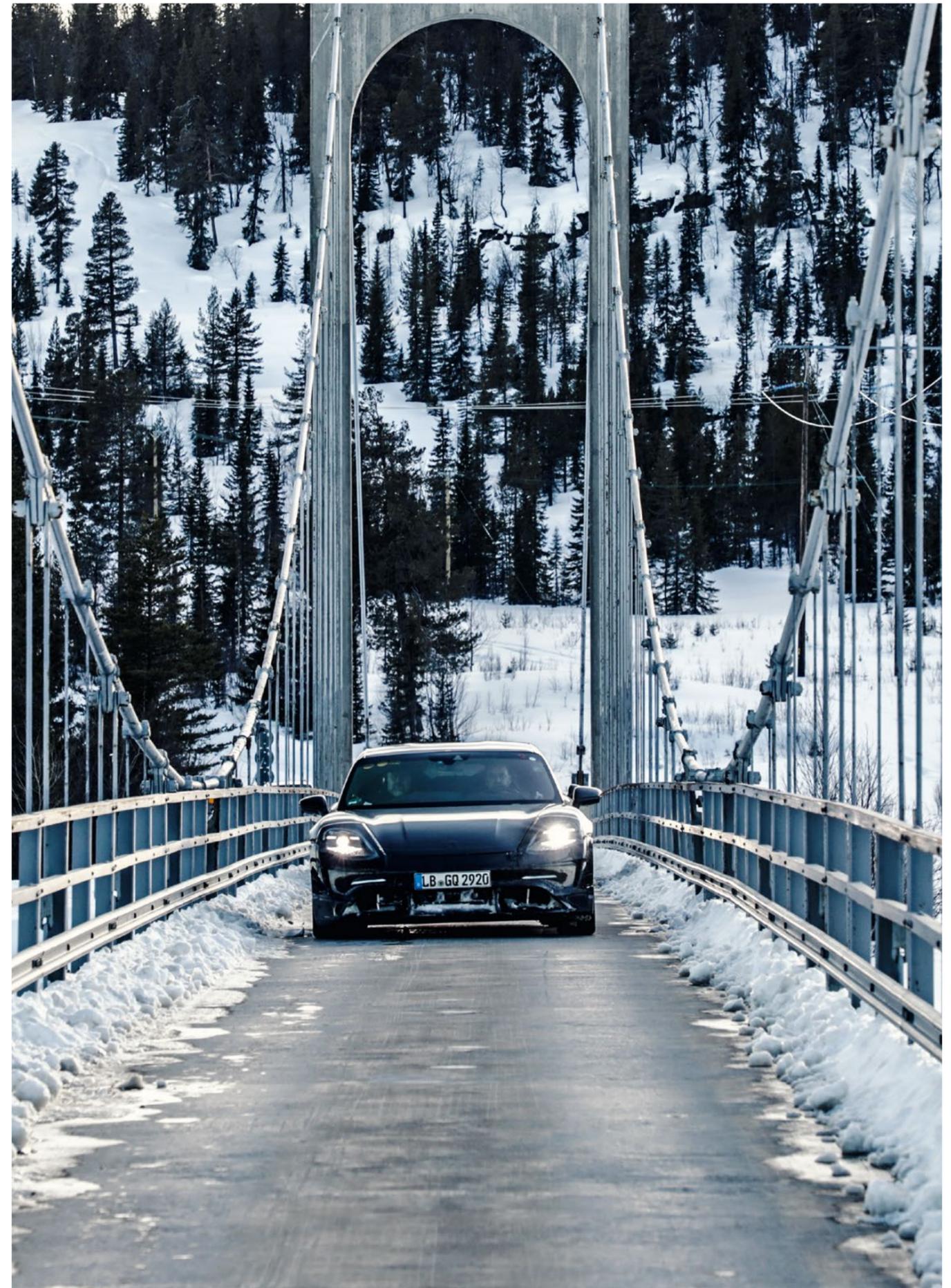
Here, it is said, if you vigorously toss out the contents of a cup of water, it will freeze before it hits the ground. The temperature record in Lapland is minus 52 degrees Celsius. Northern Sweden is the icebox of the European auto industry. With plenty of space. There are some nine thousand lakes in the vast expanse. With layers of ice thick enough to bear any loads moving about on top. Ideal terrain for driving tests.

The cold has never really been an issue. Taycan's large battery pack has adequate reserves. And electric motors always start. Moreover, it gets warm in the Taycan significantly faster than in a combustion-engine vehicle. The thermal system quickly makes the heat generated by the power grid, the drive management, and motors available to the occupants.

By contrast, ice and snow presented a challenge. In the beginning, at any rate. Not because they compromised Taycan's driving functions in any way. It was more the driving dynamics. At first, the Porsche did not know how to bring its power to the snow-covered or frozen ground. Because the electric motors

serve up their full torque from the first revolution. Without application of the brakes, all four wheels sometimes spun helplessly. At times the Taycan would spin out to the right, at times to the left. Only when the drive system developers switched from torque regulation to a revolution-oriented logic did they succeed in taming the force of the electric sports car. Now the two motors coordinate so lighting-fast and accurately that the Taycan has surpassed the benchmark: no other Porsche model lays down a more robust performance on ice. No other slaloms more elegantly or drifts more manageably.

As spectacularly as the sports cars performed at the test center, they purred almost inconspicuously through the winter landscape. At least that was the intention. But not always the reality. Accustomed as they are to prototypes, the Swedes were generally quick to recognize that extraordinary vehicles were in their midst. And what they were made of. To better camouflage them, one observer advised, one ought to at least heat the counterfeit exhaust trims. That way the treacherous snow would not collect inside them, giving up the game.









Test case

"Navigation in megacities like Shanghai places extreme demands on the system."

Joachim Kramer, Project Leader Electric Taycan

Night shift

"The Taycan is by far the most highly connected Porsche. We make sure that the vehicle harmonizes with the various networks, frequencies, and specific features of the markets. At all times."

Thomas Gruenter
Integration Manager Taycan



