AutoZine
Online auto-magazine

Publication date: 22 May 2018
www.autozine.co.uk

Tesla Model S

The older the better?

Review | A spokesperson from Tesla said something remarkable. He said: "conventional cars get worse when they age. Teslas get better with time". There's only one way to find out if that statement is true. Six years after it was first introduced, Autozine took the Model S for a test once again.

Traditional carmakers want to sell you a new car every few years. To avoid alienating from the customer and to be able to offer something new every time, new technologies are being introduced gradually. Newcomer Tesla isn't held back by tradition or history and therefore introduced the revolutionary Model S in 2012. The Model S was presented as an electrically powered car with the range of a traditional vehicle, the performance of a sports car, minimal running costs and zero emissions. On top of that, Tesla took a new approach to ergonomics, which should make daily life with the car easier.

Facelift

But... an inexperienced carmaker that wants to produce such an advanced product is prone to make mistakes. Most of those were solved by 2016. That's when the Model S was updated underneath and fitted with a new nose. The first Model S had a black grille, mimicking an air intake essential for an internal combustion engine. With the face-lifted Model S ("New fascia") the grille is closed. This requires some getting used to, but it makes sense and makes the car look even more innovative.

In the first review of the Model S the build quality was described by Autozine as "comparable to a poorly constructed kit car". The test vehicle from 2018 offers much better quality. All panels now fit properly and the car shows attention to detail. Yet, the test car did have some rattles and noises on bad roads. Still the doors don't close with a solid sound and a simple pat on the dash (right above the dials) makes it plainly clear that American standards are far lower than European.

"It's a wonderful feeling to outperform sports cars with their roaring engines, screaming

turbos and blasting exhausts with a simple tip of the accelerator"

And there's another difference with conventional cars in this price range. Thanks to its electric drive train the Model S is naturally quiet. However, Tesla skipped on sound insulation for noise from the outside (and its own tyres). Despite the fact that traditional cars produce more mechanical sound, they do provide a feeling of seclusion because noises from the outside are hardly audible.

The cabin space was good and still is. If fitted with the optional glass roof, headroom in the front is ample. The space in the rear is good, but without the hard shells at the rear of the front seats, the legroom in the back would be even better. The boot is large and as a "bonus" under the bonnet a second storage can be found, which can comfortably accommodates a large shopping bag or trolley.

Ergonomics

Because Tesla doesn't have any heritage as a carmaker, the brand was free to redesign the car from scratch and that led to a unique approach. For example, the Model S doesn't have an ignition like other electric cars still do. By simply selecting "drive" (and pressing the brake), the car turns on. By selecting park and getting out of the car, it will automatically shut down and lock.

The cabin of the Model S is dominated by a huge display. And this is where the real power of the car is! Every Model S is equipped with an Internet connection and this can be used by Tesla to install "over the air"

updates at any given time. Older examples of the Model S do not benefit from the hardware update described above, but they do benefit from all software updates!

Over time, the layout of the menu's became more polished and information was arranged more logically. Since the latest update (version 8.1) the system also responds quicker to user input. Speech recognition (tested in English and Japanese) now also works well. Updates don't just fix bugs, they also add new functionality. Part of this new functionality comes for free; others are paid options.

Autopilot

The most talked about feature is "Autopilot". Depending on the number of sensors (from "AP2" this has increased significantly) the Model S can drive semi-autonomous or even fully autonomous. When activating Autopilot a dialogue clearly states that this is beta software and Autopilot is merely a driver's aid, not a driver's replacement. And every time Autopilot is engaged, the driver is instructed to keep their hands on the wheel.

However... Autopilot works so well, that it's easy to ignore all warnings and let the car drive itself. In the display behind the steering wheel the Model S schematically shows what the vehciles the sensors register and this gives extra faith in the system. Also, the Tesla software has a more assertive driving style than comparable (and much simpler) systems from other brands, which means the driver hardly ever has to take over because the computer is too careful and slows down traffic.

During the trail, the test car managed to drive part of the Tokyo ring road fully autonomously. It was only at the toll gates that the driver had to take over, because Autopilot does not yet handle barriers or traffic lights. And that's what makes using Autopilot tricky: the driver isn't controlling the car any more, but merely takes over when things go wrong, and that requires a different kind of concentration.

Yet, it is admirable that Tesla deploys this technology so early in its development, because other brands say they can do better but haven't delivered anything as sophisticated yet. And when used correctly, Autopilot already improves safety. It turned out that the car always reacted quicker to situations than the test driver. Also: if the owner allows, Tesla can "snoop" while the automatic pilot is engaged thereby making this self-learning software ever smarter. In this way, Tesla gains more experience than any other carmaker.

Manual driving

For those who want to drive manually, there's news as well. Over time, Tesla made the Model S ever faster, while battery capacity increased as well. The test car is a so-called "100D". This means a 100 kWh battery combined with "dual motors" (four-wheel drive). The latter now comes as standard, in order to transfer its 413 PS / 660 Nm effectively to the tarmac.

However, mere power isn't everything. It's the way the power becomes available! An internal combustion engine needs to rev up to perform. An electric motor always has its maximum torque available and that makes for an entirely different experience. The "Model S 100D" isn't just powerful, the power is always available by the bucketload. The "base model" driven here (big battery, base engine) accelerates from a standstill to 62 mph in 4.3 seconds and that isn't just quicker than other luxury sedans but even quicker than many sports cars.

It's a wonderful feeling to outperform sports cars with their roaring engines, screaming turbos and blasting exhausts with a simple tip of the accelerator. The Model S does so without huffing, puffing or other drama but rather so elegantly and quietly that the humiliation for the shouty sports car is even bigger. If that isn't enough: Tesla also offers a "P100D" (612 PS / 967 Nm), which will even outperform most supercars.

The battery of the Model S is mounted in the bottom of the car, underneath the seats. This means the centre of gravity is low and centred, and that makes the car very stable. When it comes to roadholding, this luxury sedan can compete with sports cars as well. At the same time there's a significant difference with sedans from other brands: the Model S has very firm underpinning, while more experienced carmakers manage to combine sportiness and comfort better.

Range

According to the NEDC norm, the Model S can cover 632 km on the 100 kWh battery. During the test drive in Japan (low speed limits, hilly landscape) 495 km could be driven on a full charge. This gives the Model S the same range as petrol powered cars and this takes away the biggest objection against electric cars.

Just like other electric cars the Model S can charge at home, at a public charging station and at quick chargers. Next to that Tesla operates its own network of chargers. So-called "superchargers" are everywhere Tesla is sold, at distances of a maximum 200 km apart.

Replenishing at these exclusive Tesla-chargers is fast (and often free!), while the trip computer gives maximum insight into the process. Next to the usual data like current drawn in kW, the Model S shows the charging speed in kilometres per hour. This may not be scientifically sane, but it is the most informative unit. For example, the test car was charged at 580 km/h. In other words: one hour of charging would give the car an extra range of 580 km.

Finally

Crushing performance, smart ergonomics and an exclusive network of charging make driving a Tesla feel like a privilege. The car was already smarter than average, but the Tesla driver also gets preferential treatment.

As an extra bonus the Tesla driver gets to name the car, which then is shown with all information about the car. The test car was named "Big Red Riding Hood", for obvious reasons. When scrutinising the menus thoroughly one can even find "Easter eggs". Yes, Tesla has a funny side! These things might just be details, but it does create a bond between the car and the driver, and that's something no other carmaker managed before.

Conclusion

Does a Tesla Model S really get better when it ages? Yes, but there is some fine print. When first introduced, the Model S suffered from some teething problems, but those have mostly been solved. Build quality is now much better, reliability has improved and the mechanics have been refined. That's good news for new customers, but those who already own a Model S don't benefit from it.

What makes every Model S better, are the many software updates. With the new software the car responds quicker, user experience has improved and several new features have been introduced. It is unique that older cars benefit from updates and this is one of the reasons why Model S hardly depreciates in value.

What has remained over the last six years, is the innovative design of the Model S. Being a new brand, Tesla reinvented the car and that fact alone makes for a unique experience. By default, electric cars are faster, cleaner and more comfortable than "fossil cars". Tesla went one step further and made the electric car cool and desirable. Other carmakers now wanted in on this success and all announced electric cars. But... that will be version 1.0 of those vehicles, while Tesla is now at version 3.0 of the electric car. ■

Specifications
Tesla Model S 100D

Size and weight

Length x width x height	497 x 197 x 145 cm
Wheelbase	296 cm
Kerb weight	2.108 kg
Trailer	unknown
Trailer - braked	unknown
Battery	100 kWh
Luggage space	894 l
Tyre size	245/45R19

Engine and performance

Max power	376 PS @ 6000 rpm
Max torque	440 Nm @ 1 rpm
Drive	four wheel drive
Acceleration 0 - 62 mph	4.3 secs
Top speed	250 km/h
Average mileage	unknown
Mileage urban	unknown
Mileage extra urban	unknown
Range	632 km (NEDC)
CO2 emissions	0 gr. / km

Price

Price	Â£ 87,050
Price base model	Â£ 66,900