Tesla Model S

Published: December 8, 2014

Author: Tom Scanlan

Online version: https://www.wheels-alive.co.uk/tesla-model-s/

Tesla? What's that? Well, petrol-heads would know, even if there's no petrol anywhere near it... by Tom Scanlan



The designers of these American 100% electric cars have achieved a lot. The cars themselves are the ultimate expression so far of what can be achieved using just electricity. Their performance is in the supercar range and they are extraordinarily impressive to drive.

Until very recently their biggest problem in the UK has been the lack of infrastructure to keep them charged up. Apart from the slow process of re-charging the batteries at home, Tesla only had a handful of what they call Supercharging points around Britain, where it takes 'only' about twenty minutes to get an 50% top-up. You could stay and charge up to 100% which could take up to an hour, because the rate of charge slows down as the battery fills up. This is something that they have been working on; in the meantime, the few owners of a Tesla have had to plan longer journeys quite carefully and very possibly to be prepared to modify their driving habits. The claimed range is 285 miles and, until recently, there were just nine supercharging sites: five in London, and one each in Birmingham, Bristol, Reading and Edinburgh. However, in the last few weeks (up to mid-January 2015), the Supercharger network has been extended considerably, with new locations in Exeter, Warrington, Heathrow, Bristol and Westfield White City (the UK's largest Supercharger station). In addition, a new Supercharger station has just been opened in Maidstone. Tesla plans full UK and Ireland coverage by the end of 2016, to enable travel throughout the British Isles. (There are Supercharger stations across Europe and around the world too…).

I drove the Model S. This is a big saloon that comes with a choice of two power outputs. The more powerful has 85 kWh. This car delivers superb performance at any speed. Its 416 bhp and 443 lb/ft of torque are instantly available at any moment. On dry roads, its blistering pace can be hugely entertaining, especially if you happen to be in the company of the fastest Mercedes-Benz S class, BMW 7-series, Audi A8 or Jaguar XJR. On wet roads, beware! The car has of course its myriad safety systems, but wheel-spin is almost impossible to overcome if your foot's too heavy in the wet. This svelte but hefty car claims to hit 62 mph in just 5.4 seconds. Maximum speed is around 125 mph.

Progress is silent – almost. At low speed it's possible to hear a distant hum and some sound of the car rolling along on its wheels. At higher speeds, all top luxury saloons are as quiet as the Tesla, with perhaps just a little road noise and whisper of wind at the motorway maximum.

The brake regeneration effect takes a bit of getting used to: you don't need to use the

brakes themselves so much as in a conventionally-engined car, so, approaching a 30 mph bend in the country, for example, can be done without using the brakes, staying on the throttle a bit longer and then letting the car slow itself under regeneration.

Handling is good; braking excellent; steering accurate… everything is well-sorted.

Getting into the car for the first time and what immediately strikes you is the enormous touch-screen; it's at least twice the size of rest of the industry's best offerings. It also empowers the driver to know almost everything in the car and in the world except what he had for breakfast. Of course, it all takes a lot of learning and the temptation to fiddle with it whilst driving needs to be resisted. I would have liked a head-up display, but Tesla eschews the idea.

Interior design

The interior design is attractive and the finish appeared to be of high quality. There's loads of cargo capacity, back and front (no engine, remember?).

The Tesla Model S has received a maximum-possible 5-star Euro NCAP safety rating and is also one of just a few cars to have ever achieved a 5-star safety rating from both Euro NCAP and the U.S. National Highway Traffic Safety Administration (NHTSA). Additionally, Model S is the only car this year to have achieved both a 5-star Euro NCAP rating and 5 stars in every NHTSA subcategory, including frontal impact, side impact, and rollover. Euro NCAP assesses the wider range of scenarios, including tests for child and pedestrian safety. Unlike for NHTSA, active safety is also an important part of Euro NCAP's 5-star requirement.

Structurally, Model S has advantages not seen in conventional cars. It has a low centre of gravity because its battery pack, the largest mass in the car, is positioned underneath the passenger compartment, making rollover extremely unlikely. It also has a large front crumple zone because of the lack of an engine, meaning it can absorb more energy from a frontal impact, the commonest type of crash resulting in fatalities. Its body is reinforced with aluminium extrusions at strategic locations around the car, and the roof can withstand

at least 4Gs…

