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2017 Tesla Model S

Overview

The combination of a sexy shape and sensational speed is quite electric. That would be the Tesla S. Oh, there's that too, the all-electric power.

The Model S is now in the sixth year of its first generation, new in 2012.

The S comes in four choices of battery capacity: 60, 75, 90, or 100 kilowatt hours. The small 60 kwh is rear-wheel drive, the others all-wheel drive.

The rear-drive S uses a 270-kilowatt (362 horsepower) motor. The awd D models use two 193-kw (259 hp) motors, mounted front and rear, one for each axle. The ultimate P100D model puts even more power to the rear, 375 kilowatts (503 hp).

The silent acceleration is astonishing, as quick of some of the fastest supercars in the world.

The BMW i3 notwithstanding, the closest competitor or comparison to the Tesla S might be the Audi A7, with its similar fastback shape and four doors. Or maybe the Jaguar F Type, or even the luscious Maserati Ghibli. But neither BMW nor Mercedes have a car as sleek as the Tesla S.

The cabin is disappointing. Electric engineering aside, two out of three isn't good enough. Got performance, got styling, but the interior is stark, dominated by a giant 17-inch touchscreen in the center of the dash.

The standard suspension is firm, but the optional air suspension provides choices, from super soft to super firm.

The Tesla S handles way better than a sedan that's this heavy should. The curb weight of nearly 5000 pounds would be more, if not for the aluminum structure, same as the Audi A8, Jaguar XJ, and Range Rover. The cornering is remarkably flat, thanks to the low center of gravity and ideal weight distribution enabled by the battery pack. It's mounted under the floor, protected from road debris by a titanium/aluminum shield.

The EPA says the rear-wheel-drive S can go 218 miles on a charge, and the awd models increase the range up to 315, depending on battery size. That works out to 89 to 104 MPGe combined. (MPGe, or Miles Per Gallon Equivalent, is the distance an electric car can travel on the energy contained in one gallon of gasoline.) That's at average speeds, not sustained freeway or with heavy use of the climate controls, which cut 10 to 25 percent off the range.

There are controversies around its crashworthiness. The NHTSA gives the Tesla S top scores in every category (however the all-wheel-drive models haven't been fully crash-tested). But the IIHS basically sent Tesla back to the drawing board in the small-overlap test that's like hitting a tree, and added insult to injury by rating the headlamps Poor. The company says its working on a fix to the chassis of the Tesla S, so it can survive impact with a tree better but hasn't said when that fix will be in the cars.

There are more controversies around its drivability. After failures of the self-driving Autopilot mode, it was improved in 2016, but not proven bomb-proof yet. The price for Autopilot was increased from $2500 to $5000. Also, an option to the option was added, the Fully Autonomous package, for $3000. Automatic emergency braking, or AEB, has been redesigned for the latest S models, and now uses radar to stop the car at speeds of up to 28 mph.

The Tesla S comes standard with forward collision warning with automatic emergency braking, lane-departure warnings, adaptive cruise control, adaptive headlights, blind spot monitors.

Tesla's network of Supercharger DC fast-charging stations is growing fast, enabling trips to more distant locations. If you get the optional 20kw supercharger, and you have a place to recharge for about 30 minutes every 200 miles, road trips are feasible.

Model Lineup

The price before incentives of the base R60 (rwd 60kwh) is $68,000; R75 is $69,500; A60D (awd 60 kwh) is $73,000; A75D is $74,500; A90D is $87,500; A100D is $97,500; and P100D with that big rear motor is $140,000.

Standard equipment includes all power, Bluetooth, WiFi, everything you'd expect in a car this price. Options include a cold-weather package, parking assist, Ultra-High Fidelity sound system, premium leather upholstery, premium interior lighting, foglamps, power folding exterior mirrors, power sunshade, different 19-inch wheels, 21-inch wheels, and smoked sunroof.

Exterior

The Tesla S started out striking, and with a new nose last year, got downright gorgeous. It's sleek, muscular, and aerodynamic, with a long windshield and flush door handles that reach out when the key is near.

Interior

The cabin is muted, but can be made unique inside, with the massive sunroof, premium sound system, silent running, and rolling down the freeway on Autopilot.

The dashboard is stark, if you can even call it one. Everything is done via the 17-inch display that dominates the dash, so there are no controls, knobs, or dials. Just steering wheel, stalks and pedals on a flat floor with wasted space.

There are gauges, however, at least virtual ones, images of analog gauges that appear on a screen behind the steering wheel. Both high-rez screens are clear and colorful, with big simple icons, and the simplicity and speed of the system stands alone among luxury cars.

The S is remarkably comfortable for four, with room for five. Even seven, if you count the optional rear-facing child seats accessed through the hatch, and with four-point harnesses.

Long-legged rear passengers might struggle to climb in and out of the back seat, because the door openings are smaller than the doors. And with the floor raised a bit to accommodate the battery pack, those long legs will have to stretch more, but there's room for it. The rear seatback is reclined a bit for headroom under the fastback.

There's good cargo space under the hatch, 26 cubic feet, about twice the size of a trunk. With the 60/40 rear seat folded, it's 58 cubic feet. Under the hood, where there is no engine, there's another 5 cubic feet of cargo space.

Driving Impressions

The most staggering statistic for the Tesla S is its zero to sixty time of less than three seconds. If you dropped a bowling ball off the Empire State Building, it would accelerate to 60 mph slower than a P100D on the dragstrip. And make about as much noise. And cost a lot less.

Like all electric cars, all the torque is there at what would be zero rpm with an engine. Leaving stoplights, the toe-tip speed along with the silence makes it very easy to hit 60 mph on city streets by mistake.

It's about the same weight as a Mercedes S-Class, but handles better because of the low placement of the battery weight, and the weight distribution of 45/55 front to rear.

The ride is quite firm in the rear-wheel-drive base Model S, but the available air suspension gives modes to soften it. However not all road imperfections are swallowed by the air suspension.

The suspension settings include very firm, normal (default), and comfort which is very soft. There are also two regenerative braking modes, low and normal, which isn't as strong as the BMW i3. So you can't drive the Tesla S without using the brake pedal at all. Some electric-car drivers think it's an inconvenience to have to actually apply the brake pedal to get stopped, as if the regenerative braking system, having no eyes, can always get it spot on. We are thankful for being able to control our own braking in the Tesla S.

Final Word

The Tesla Model S is an amazing piece of engineering. It delivers exhilarating acceleration performance, quietly, electric power, and stunning good looks. The cabin is disappointing, and its range is limited.