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Tesla Says it Has 'a Few Hundred' Semis on the Road With 13.5 Million Miles Logged



Cláudio Afonso | 23rd March 2026

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[Tesla](#)'s fleet of Semi trucks has logged 13.5 million combined miles across "a few hundred" vehicles in commercial operation, with one truck reaching 440,000 miles, according to the Semi program head Dan Priestley.

[Tesla](#)'s director of semi truck engineering and chief designer Franz von Holzhausen revealed the information in a new episode of Jay Leno's Garage published Monday to the show's 3.95 million YouTube subscribers.

The executives returned to Leno's show to review the long-range 500-mile second-generation model — their first appearance since a 2023 visit that featured just 60 to 70 pilot units.

The updated numbers mark a significant step up in fleet scale and real-world validation ahead of volume production at [Tesla's](#) Northern Nevada factory, which executives say is “standing up” and backed by “ample demand.”

Engineering Overhaul

Priestley said the truck has undergone “a lot of engineering improvements” since 2023, driven primarily by the need to prepare for high-volume manufacturing.

“It's been mostly in the name of moving towards high volume, so that's updated designs for high manufacturability and tooling, but also we've taken a lot of the engineering from other products and brought it into the Semi,” Priestley said.

The company has replaced the hydraulic-assist steering system with a fully electric unit derived from the Cybertruck.

“We’ve brought over the Cybertruck actuators, beefed them up a little bit because of the steering loads,” he said. The system remains mechanically connected rather than steer-by-wire.

[Tesla](#) has also migrated the Semi to a 48-volt low-voltage architecture, the same system the Cybertruck debuted.

“We still do local down conversion for 12-volt accessories that a driver might need, but we’ve brought that next generation 48-volt architecture because it’s just more efficient and it’s a lot less mass and wiring harnesses,” Priestley said.

The battery uses the same lithium-ion cell type as the Cybertruck, arranged in a different

configuration within the truck's chassis.

Packs are mounted low to the ground to keep the centre of gravity down, and are integrated with the chassis structure to maximise rigidity while minimising weight.

Million-Mile Battery

Priestley said the battery is designed to last one million miles, acknowledging some degradation over time but maintaining that it can serve its original duty cycle for the full distance.

He compared the Semi's battery management philosophy to [Tesla's](#) stationary energy products rather than its passenger cars.

“We think about it — it's a little bit more like one of our energy products, like our Megapack or Powerwall on wheels,” he said. “It is doing a lot of discharges. It does like one a day. It's not like a car

where you might only be doing 10 or 20% a day.”

The economics favour maximum road time.

“The more energy throughput you are putting through the system, the greater fuel savings you have compared to if you were doing that work with diesel,” Priestley said.

[Tesla](#)’s executives have also disclosed that the Semi fleet achieves 95% uptime.

“80% of breakdowns, if you have one, are returned back to the customer in less than 24 hours, and half are back in less than one hour,” the company said.

Next-Gen Semi and Production Timeline

[Tesla](#) was spotted testing a redesigned Semi at its Fremont facility in February, featuring a Model Y-style light bar, improved efficiency, and increased payload.

The second-generation truck sheds roughly 1,000 pounds compared to its predecessor and achieves 1.7 kWh per mile, a 15% efficiency improvement, while maintaining a 500-mile range.

The truck delivers 800 kW of drive power and supports peak charging speeds of 1.2 MW.

[Tesla](#) has stated that the majority of the Semi's 500-mile range can be recovered in a 30-minute charge session.

The company has recently shared images showing the updated model undergoing winter testing in Alaska.

Volume production has faced several delays, but [Tesla](#) says the Northern Nevada factory is now “standing up” and cited “ample demand” for the truck.

VP of Vehicle Engineering Lars Moravy said last October that the factory was “going on schedule,”

with “the building completed and equipment being installed.”

He projected “larger builds toward the end of this year,” with a ramp in the first two quarters of 2026 and “real volume coming in the back half of the year.”

Elon Musk reiterated at the Annual Shareholder Meeting that volume production would begin in 2026 but did not provide a more specific timeline in the January earnings call.

Charging Network Expands

[Tesla](#) opened its first Semi charger outside a factory earlier this month, in Los Angeles.

The charger delivers a maximum output of 750 kW and is open to all Semi customers. It is the company’s second Megacharger site after Nevada.

[Tesla](#)’s charging map shows 48 planned Semi charger locations, including 18 on the West Coast and eight in Texas.

The company has partnered with Pilot to install chargers at select travel centre locations along Interstate 5, Interstate 10, and other high-demand corridors.

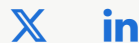
The first Pilot sites are expected to open in summer 2026, with initial locations planned across California, Georgia, Nevada, New Mexico, and Texas.

Cláudio Afonso

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Cláudio Afonso founded CARBA in early 2021 and launched the news blog EV later that year.

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