



Volvo Trucks' I-Roll with engine stop/start is a new feature to reduce fuel consumption and CO2 emissions

IMAGE SOURCE: Volvo Trucks

Volvo Trucks launches world-first stop/start engine technology to save fuel and CO2

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- Volvo Trucks introduces a world-first stop/start engine technology integrated into its I-Roll system for heavy-duty trucks.
- This innovation temporarily shuts off the engine on downhill slopes to reduce fuel consumption and CO2 emissions by up to one percent.
- The new feature will be available on Volvo FH and FH Aero models with 13-liter diesel engines starting November 2025.

- The development aligns with Volvo's broader decarbonization strategy, which includes renewable fuels and electric truck technologies.

Volvo Trucks introduces a new generation of its I-Roll technology, adding an engine stop/start functionality – a world first in the heavy-duty truck industry. The new stop/start function will cut fuel consumption and CO2 emissions – the latest initiative from Volvo to reduce the climate impact and running costs of transportation.

Volvo Trucks' recent victory in the 2025 Green Truck Award test with the Volvo FH Aero is proof that its latest technologies and innovations have a real impact on fuel efficiency. The new Aero cab that was introduced in 2024 and the further aerodynamic improvements since then pay off in terms of significant fuel consumption and CO2 emission reductions.



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The latest addition in Volvo's striving for fuel savings is developed in-house at Volvo and is based on the company's existing I-See and I-Roll technologies. The new stop/start engine feature is enabled by constantly monitoring road data and road curvature information. The engine will be turned off temporarily when an oncoming downward slope is identified along the route. While the engine is turned off, zero fuel will be consumed and consequently, there will be no CO2 tailpipe emissions.

"Our engineers have done it again – innovating a new engine technology that contributes to making transport by truck more fuel-efficient", says Jan Hjelmgren, Head of Product Management, Volvo Trucks. He continues: "As part of our decarbonization strategy, we will continue to innovate to make our combustion engines even better and to reduce our impact on the environment."



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The new engine stop/start functionality is activated at speeds above 60 km/h. Depending on enabling conditions such as topography and ambient temperature, the new I-Roll with Engine stop/start will be able to cut up to one percent of fuel and CO2 emissions on top of already achieved savings. Together, Volvo's many innovations represent significant efficiencies and a positive impact on emissions from transport, as well as running costs for the operator.

The new feature will be offered on the Volvo FH and FH Aero with 13-liter diesel engine and customers can order it from November 2025.

Volvo Trucks' strategy for decarbonization includes combustion engines powered by renewable fuels, battery-electric and fuel-cell electric trucks.

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