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THE VOLVO GROUP UNVEILS VIABLE NEW HYBRID TECHNOLOGY



Today, the Volvo Group presents an efficient hybrid solution for heavy vehicles, which offers fuel savings of up to 35 per cent.

"We envisage opportunities to accelerate developments in commercially viable hybrids for heavy vehicles. This can be significant for both our customers and for the environment," says President and CEO of Volvo, Leif Johansson.

The Volvo Group's hybrid concept provides maximum fuel-saving effects on routes with frequent braking and accelerations, for example in refuse collection, city bus traffic and city distribution. Calculations indicate that fuel savings can amount up to 35 per cent. Maintenance costs for vehicles can also be reduced through reduced wear on the braking system.

The hybrid concept is designated I-SAM and it consists of a combined starter motor, drive motor and alternator, along with an electronic control unit. I-SAM interacts with Volvo's I-Shift automatic gear shifting system. The batteries are recharged by the diesel engine and whenever the brakes are applied.

The electric motor offers smooth performance at low speeds, supplementing the diesel engine's excellent performance as speed rises. This unique solution allows the truck to accelerate under electric power alone. This promotes lower fuel consumption, lower emissions and lower noise levels.

And there are several additional features that contribute to the lower fuel consumption.

"Thanks to the electric motor's capacity, the diesel engine can be automatically switched off when the truck stops to make deliveries, pick up loads or pauses at traffic lights," explains Lars Mårtensson, environmental affairs manager at Volvo Trucks. Auxiliary functions such as the servo pump, AC compressor and so on are driven electrically in the hybrid truck instead of by the diesel engine.

Thanks to efficient interaction between the two power sources, the vehicle can be fitted with a smaller diesel engine without compromising on performance. This gives customers a cost-effective solution that reduces emissions.



"The hybrid is a long-term and highly interesting solution for efficient and environmentally-adapted transport activities. We are aware that oil prices for our customers will rise, and therefore, all solutions that reduce fuel consumption are highly attractive", says Leif Johansson.

"The diesel engine in our hybrid solution can also be operated using biofuels, and consequently, transport activities can be conducted without carbon dioxide emissions. This paves the way for interesting developments toward long-term sustainable transport solutions", he continues.

The Volvo Group is also participating in the development of a new type of battery - Effpower - which is based on proven lead-acid technology used in start batteries in today's vehicles. Through this new technology, the power output has been doubled, while at the same time manufacturing costs for the batteries can be significantly reduced compared with alternatives on the market. With Effpower, the cost efficiency in electrical hybrids can be further enhanced.

The Volvo Truck Corporation's new hybrid truck will now undergo a wide range of tests, but the company predicts that a hybrid truck bearing the Volvo badge will be available on the market within a few years.