



Press Information

Volvo tests new hybrid refuse truck in London

Volvo Trucks is now launching an upgrade of the world's first hybrid refuse truck. After a year and a half of initial field testing with excellent results, an upgraded truck is now being released with new components and software. The new refuse truck will be tested by Veolia Environmental Services in central London.

“Up to 30 per cent lower fuel consumption, low emissions and a low noise level make this hybrid a very attractive choice. That’s why we’re keen to test and develop the technology in partnership with Volvo Trucks, with whom we have developed a very strong working relationship,” comments Rob Stubbs, fleet director at Veolia, London and the UK’s leading waste management provider. The company has ordered the new refuse truck.

Same concept, new components

The new truck is an upgraded version of the trucks field-tested in Stockholm and Göteborg, Sweden, over the past eighteen months. Like these trucks, the new refuse truck is what is known as a parallel hybrid. This means it has two separate drivelines, one for diesel and one for electricity, which can be used either separately or together. The benefit of this is that each fuel type can be used where it is most fuel-efficient: the electric motor at low revs and the diesel engine at high revs.

“The basic concept is the same, but all the components and software have been updated,” explains Fredrik Bohlin, Business Manager, Hybrids at Volvo Trucks. “Development is extremely fast, and the technology in our latest test vehicle is much closer to a production-ready solution.”

The new refuse truck has electric power steering, completely new control systems and refined battery management strategies to optimise the battery performance. Loading and refuse compaction are completely electrically powered by means of a plug-in compactor that is charged via the main electricity grid. The battery is also new, with improved reliability and a longer lifespan.

According to Fredrik Bohlin, a small-scale series production of the hybrids will start in 2012 at the earliest, which is somewhat later than the original plan. The delay is related



to the global financial crisis that has affected both Volvo's product development and customers' investment capacity.

Experience leads to optimised solutions

The field tests currently underway have given Volvo Trucks' engineers important experience, which will be used when developing the new refuse truck. Making two drivelines work together has proved to be a balancing act.

"For example, if you want to minimise fuel consumption, you can maximise the use of the electrical power unit. However, this reduces battery life. So to achieve an optimal solution, many different properties must be weighed against each other," explains Fredrik Bohlin. "It's all about satisfying high demands for performance, lifespan, fuel consumption and operability."

Fuel consumption reduced even further

The initial results from all Volvo hybrid test vehicles show that the prediction of up to 30 percent less fuel and carbon dioxide emissions has been validated. Renova, a waste and recycling company in Göteborg, is among the customers that have been testing Volvo's hybrid refuse truck since spring 2008, and they can report an even greater reduction.

"The hybrid has met our expectations and our drivers are highly satisfied," says Lars Thulin, vehicle development manager at Renova. "The electrical power system provides high torque from start-up, low noise level and emission-free loading and refuse compaction. In terms of fuel consumption and climate impact, our measured results are even better than expected. We've achieved reductions of a staggering 35 percent. On an annual basis, the hybrid saves us 5 250 litres of fuel compared to a traditional diesel engine...and we only drive single shifts"

The refuse truck now being delivered to Veolia is not the first Volvo hybrid in London. Six Volvo hybrid buses have been operating on the streets of London since summer 2009.

"This means we already have a very skilled and motivated local service organisation with the specific technical expertise required to service our hybrid vehicles," says Fredrik Bohlin.

November 17, 2009



*For further information, please contact:
Per Nilsson, phone +46 31 323 33 49, e-mail per.nilsson.pr@volvo.com*

Visit <http://www.thenewsmarket.com/volvogroup> to access broadcast-standard video from the Volvo Group. You can review and request video material, and choose to receive it as an MPEG2 file or on Beta SP tape. Registration and video are free to the media.

Volvo Trucks provides complete transport solutions for professional and business-driven customers. The company offers a full range of medium to heavy duty trucks, with a strong global network of 3,000 service points in more than 140 countries. In 2008 Volvo Trucks sold more than 106,000 trucks worldwide. Volvo Trucks is a part of the Volvo Group, one of the world's leading manufacturers of trucks, buses and construction equipment, drive systems for marine and industrial applications, aerospace components and services. The Group also provides solutions for financing and service.