

Komatsu Hybrid excavator will make its European debut at Bauma 2010

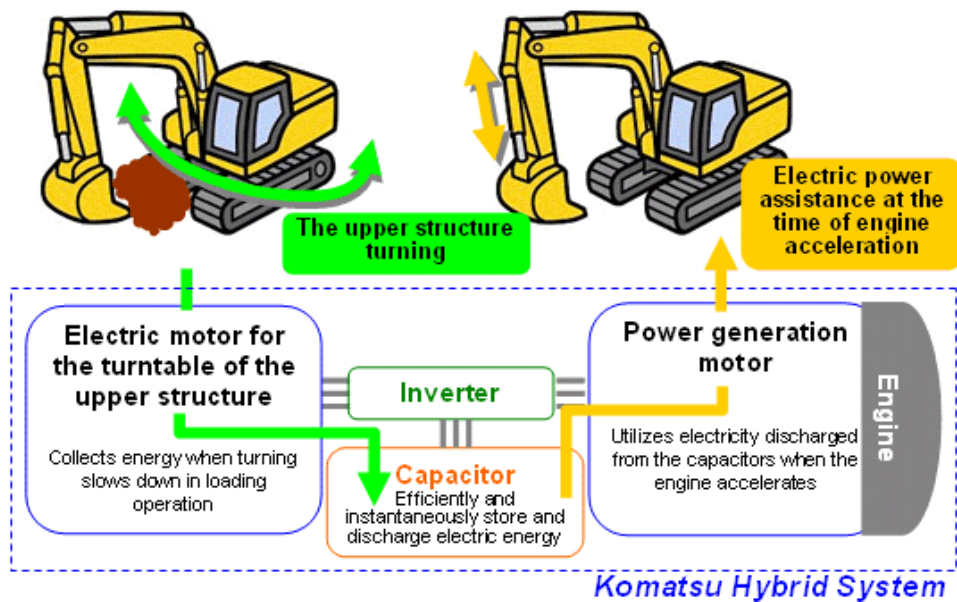
Munich, January 2010 - The PC200-8 Hybrid excavator, the world's first hybrid construction equipment, will be presented for the first time in Europe at the Bauma 2010 International Fair.

The Hybrid PC200LC-8 excavator was introduced to the Japanese market in June 2008, and has been successful in reducing fuel consumption. In addition, Komatsu introduced the Hybrid to the Chinese and North American markets in 2009.

Komatsu has raised the industry bar for hybrid technology by offering outstanding efficiency on a product with an already solid reputation.

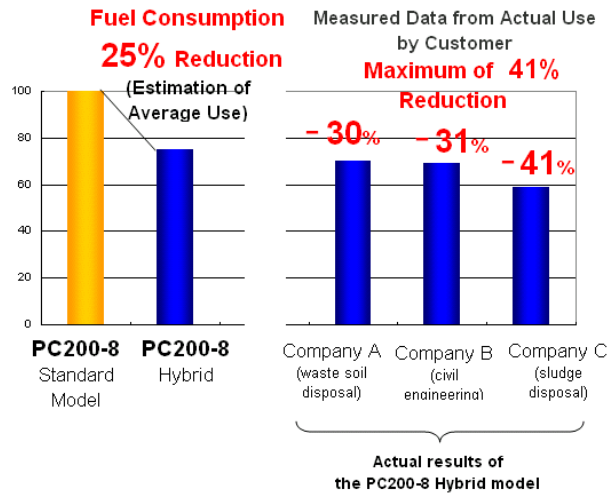
This new hybrid excavator is the flagship of Komatsu's construction equipment. As one of the world's top construction equipment manufacturers, Komatsu's goal is to meet increasing global environmental concerns through the development of innovative equipment designed to reduce environmental impact, including CO2 reduction. By developing a successful hybrid excavator in the largest construction machine segment (20-22 tonne), Komatsu's green technology will have a substantial impact on saving fuel and reducing green house emissions.

Powered by the Komatsu Hybrid System, the Hybrid PC200LC-8 uses a newly developed electric swing motor, power generator motor, capacitor and diesel engine. Komatsu developed its revolutionary hybrid system to work on the principle of swing energy regeneration and energy storage using the Komatsu Ultra Capacitor system. Komatsu's Ultra Capacitors provide fast energy storage and instantaneous power transmission.



The kinetic energy generated during the swing braking phase is converted to electricity that is sent through an inverter and then captured by the Ultra Capacitor. This captured energy is then discharged very quickly for upper structure rotation and to assist the engine as commanded by the hybrid controller when accelerating under work load conditions.

In tests comparing the standard PC200LC-8 hydraulic excavator to the Hybrid PC200LC-8, the hybrid model reduced fuel consumption by approximately 25-40%, depending on the application.



All components of the Komatsu Hybrid System are made in-house, ensuring high reliability and durability.

The Hybrid PC200LC-8 is powered by the powerful, turbocharged and air-to-air after-cooled Komatsu SAA4D107E-1 that provides 138HP. With an operating weight of 43,643 to 47,260 pounds, the Hybrid PC200LC-8 has a bucket capacity of 0.66 – 1.57 yd³. The Hybrid PC200LC- has the same vigorous working forces and performance levels of the conventional PC200LC-8.

The innovative cab design assures operator comfort because the viscous cab damper mounts reduce vibration. A large LCD monitor provides easy-to-read gauges and onboard diagnostics as well as displaying the rear-view monitoring system for viewing the work area to rear of the machine.

The Hybrid PC200LC-8 is also equipped with the latest KOMTRAX® technology that sends machine operating information to a secure website utilizing wireless technology. Data such as operating hours, fuel consumption, machine location and machine utilization are relayed to the web application for analysis. The KOMTRAX fleet monitoring system increases machine availability reduces the risk of machine theft and provides a wealth of other information to drive business efficiency.

Major Characteristics of the PC200-8 Hybrid when Compared to Standard Construction Equipment and Hybrid Cars

1) Comparison with Standard Construction Equipment

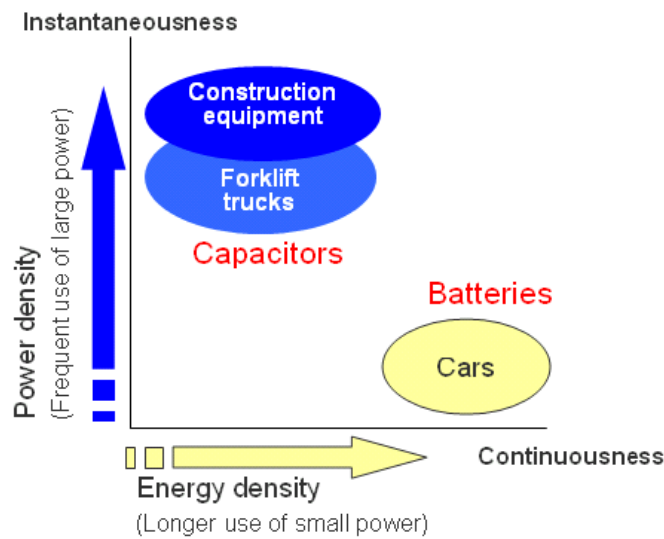
While standard equipment normally uses a hydraulic motor to turn the upper structure, for this movement, Komatsu has recently developed an electric motor for the Hybrid. By using this electric motor to collect the energy generated when the upper structure slows down while turning, we have achieved a hybrid excavator.

While standard construction equipment uses only diesel engines for power, our new hybrid excavator utilizes regenerated energy to assist the engine when it accelerates, enabling the use of the engine in a low revolution zone with high-efficiency combustion. In addition, while the engine runs idle, our hybrid excavator keeps the revolution at a super low level, achieving impressive reductions in fuel consumption.

2) Comparison with Hybrid Cars

Hybrid cars require a large amount of electric energy to start moving and to accelerate, and then they can run with a relatively stable engine revolution. By comparison, construction equipment has to accommodate dynamic and frequent fluctuations of the engine revolution, for example, for excavation work. To assist the engine in such fluctuations, the PC200-8 Hybrid is mounted with a capacitor.

Automotive batteries work on the principle of chemical reaction, thus it takes time for them to discharge electricity, providing insufficient support when applied to construction equipment. On the other hand, capacitors can instantaneously and efficiently collect, store and discharge electricity.



PC200-8 Hybrid Excavator



Information in the news releases is current on the date of the announcement and is subject to change without notice

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