

Press Presse Prensa

For the trade press

Tokio/Erlangen, November 2, 2006

Siemens cooperates with Komatsu on Drive Systems for Mining Haul Trucks

The Siemens Group Industrial Solutions and Services (I&S) and Komatsu Ltd., Tokyo, Japan, announce the formation of an alliance to jointly develop electric drive systems for mining haul trucks. Komatsu is the worldwide market leader for diesel-electric haul trucks in open pit mines. Compared to mechanical drive, the advanced technology in Siemens drive system provides higher productivity, reduced maintenance and lower operating costs. “This allows us to provide a truck to the market with lower operating costs per ton of material moved”, explains Toshitaka Hagiwara, Chairman of the Board and Representative Director of Komatsu.

“With the use of electric drive systems for mining haul trucks, the weight of the haul truck is reduced”, explains Joergen Ole Haslestad, Chairman of the Board and Group President of Siemens I&S. “Siemens’ AC drive system increases the available power and performance of the truck. We will be able to handle the payload needs of the ultra-class mining truck market”. Based on the present demand for raw materials and the boom in open pit mining, Haslestad expects continued strong demand for diesel-electric haul trucks for mining over the next years. “Komatsu and Siemens are providing the right solution at the right time”, says Haslestad.

AC electricity is generated on the truck by an alternator connected to the main diesel engine. This AC voltage is rectified into DC voltage and briefly stored. The Siemens IGBT (insulated gate bipolar transistor) inverters transform this voltage back into fine-

tuned AC power that drives the electric wheel motors at the back of the truck. With the optimized voltage and frequency control of the AC power, speed is controlled with the accelerator pedal just like in a normal car.

In addition to low operating costs, the benefits of the Siemens drive system include the capability to provide very high torque at stand still for acceleration of the truck in the severe application, high top speed, and high electrical braking capabilities. Using the electric wheel motors to slow the truck reduces mechanical brake wear and also lowers operating costs.

Further information under: <http://www.siemens.com/mining>

A picture supplements this press release. Please see:

<http://www.industry.siemens.com/data/presse/pics/09065617.jpg>



Haslestad (left) and Hagiwara agreed for cooperation for mining haul trucks.

Contact Komatsu Ltd.

<http://www.komatsu.com/>

Corporate Communications Department

Tel: +81-(0)3-5561-2616

Komatsu, Ltd., established in 1921, is one of the world's leading manufacturers of construction and mining equipment. In addition to construction and mining equipment, the Company has placed "industrial-use machinery," such as metal-sheet machines and forging presses, forklift trucks and forestry equipment, as its core business, in which we can demonstrate advantages of our superior manufacturing. In 2005 its net sales were USD 14,547 million and it employs nearly 35,000 people. Komatsu's shares are listed on the Tokyo Stock Exchange.

The Siemens **Industrial Solutions and Services Group (I&S)** is the integrator of systems and solutions for industrial and infrastructure facilities and global service provider for the plant and projects business covering planning, installation, operation and the entire life cycle. I&S uses its own products and systems and process technologies in order to enhance productivity and improve competitiveness of companies in the sectors of metallurgy, water treatment, pulp and paper, oil and gas, marine engineering, open-cast mining, airport logistics, postal automation, intelligent traffic systems and industrial services. In fiscal 2005 (to September 30) I&S employed a total of 31,700 people worldwide and achieved total sales of EUR 5.390 billion.

Further information and downloads under: <http://www.industry.siemens.com>