

Volvo Hybrid Technology Shows Big Benefits

New research shows that the construction equipment industry could reduce its carbon footprint by millions of tons a year and radically cut fuel consumption by a wholesale adoption of hybrid technology. That was the message of a recent speech given by Volvo Construction Equipment's Arvid Rinaldo. The presentation, to a group of international business journalists in Sweden, said that continuing research into diesel-electric hybrids showed benefits in fuel reduction, CO2 emissions and performance significantly larger than previously stated.

"Hybrids are not a gimmick – construction equipment responds extremely well to the technology," said Rinaldo. "We are facing the very real prospect of fuel savings up to 50 percent, significant performance increases and a reduction in CO2 emissions in the order of millions of tons a year, if adopted industry-wide."

In March, Volvo CE launched its L220F hybrid wheel loader in the U.S., offering fuel reductions of 10 percent (depending on application).

Working in cooperation with Volvo Group companies Volvo Technology and Volvo Powertrain, Volvo CE will start deliveries of its L220F Hybrid in late 2009. The heart of the hybrid system is an ISG – Integrated Starter Generator. Fitted between the Volvo D12 engine and the transmission, the ISG is coupled to a state-of-the-art battery that has many times the power capacity of a normal lead acid battery. The ISG allows the diesel engine to be turned off when stationary – and then almost instantly restarted by rapidly spinning the engine up to optimum working speed using a burst of energy from the high power battery. Since up to 40 percent of a wheel loader's time can be spent with the engine idling, this will be a major benefit.

The ISG can also overcome the diesel engine's traditional problem of low torque at low engine speeds by automatically offering a massive electric torque 'boost' – as the ISG's electric motor offers torque of up to 700 Nm from standstill – or 50 kW of instant mechanical energy.

The diesel engine will remain off for long periods when it would otherwise be idling. The operator doesn't need to over-rev the engine in order to get sufficient torque to work, as peak torque will be offered at low rpm or even when the engine is idling. This will make the machine feel more powerful and responsive. The battery is then replenished automatically without reducing productivity, with the ISG acting as an alternator. 828.650.2000, volvo.com

Rock Splitter: Versatile On Land & Under Water

The hydraulic Rock Splitter manufactured by Rock & Underground Corporation is the perfect choice for any construction job on land or under water. The Rock Splitter will satisfy the most demanding professional who needs consistent and reliable performance that is virtually maintenance free.

Rock & Underground's non-explosive hydraulic system comes with the most advanced technology for excavating rock or concrete without the safety or legal concerns of controlled explosions. There are no time delays or noxious gases from chemical splitting, nor are there vibrations from hard pounding breakers.

The Rock Splitter consists of a single hydraulic power pack which powers up to six high powered rock breaking cylinders. The cylinders are 3.3 inches in diameter and 33.5 inches in length. Each cylinder is equipped with 11 pistons that extend one inch. When the hydraulic pressure is supplied by the power pack, a breakout force of more than 26,000 psi is generated – more than conventional rock splitters.

Other benefits of the Rock Splitter include: a guarantee for the first six months of use; controlled and accurate splitting for horizontal and vertical applications; protected steel case mounted on a skid platform; and waterproof cylinder and hoses extend as deep as 30 feet and more.

Due to the extreme high working pressure of the Rock Splitter, only hydraulic hoses, fitting and hydraulic fluids supplied by Rock & Underground are approved for use. The Rock Splitter is powered by an independent 25 KVA 3-phase generator. 516.877.222, rockandundergroundcorp.com



Larson Cable Trailers

The Larson Cable Trailer Model 5600 is more than just a reel trailer — It will be used every day on the job site. The LCT 5600 can figure-8, pull cable through bores, and rewind the cable back on a reel. Use it to haul small equipment/transformers and more, on the flatbed. This trailer is popular with the communications industry where the reels aren't as heavy and the need is there for a trailer that can do many functions. 866.250.7624, larsonct.com

AEM



The new Auger Boring Machine Safety Manual was prepared by the Underground Equipment Manufacturers Council (UEMC), a bureau of the Association of Equipment Manufacturers. The 44-page manual covers safe equipment practices when operating an auger boring machine, including the installation of the casing, boring, removing the auger, working inside casing, free boring, and more. This manual is not a substitute for the manufacturer's manual(s). 414.272.0943, shop.aem.org

Kenco

The Pipe Hook was developed specifically for utility contractors to provide a safe, efficient pipe handling attachment. The operator can lift, position and set pipe with the



Pipe Hook – it works with all types of pipe. Designed for trench boxes, elastomer pads prevent pipe from slipping off and it eliminates the need for a person in the trench. Kenco's exclusive balancing mechanism is housed inside the hook body. The operator simply slides the hook into the pipe, lifts and moves it to the destination. The weight of the pipe automatically levels itself. Self-leveling models are available up to 9,000 pound capacities. 866.567.2844, kenco.com

Redi Haul Trailers



Redi Haul offers transport trailers that are ideal for skid steer loaders. Standard equipment includes: 2-inch nominal bolted oak floor; 2 5/16-inch adjustable height ball coupler; 2,000 pound swing away jack; two, 48-inch adjustable ramps; safety; break-away system and tow charger without battery; safety chain with snap hooks; sealed and shock mounted lights (LED tail lights); electric brakes with E-Z lube hubs; and four "D" tie down rings. 800.533.0382, redihaul.com

UIT/Underground Imaging Technologies

UIT's proprietary multi-channel GPR system is a 14-channel, cart-based ground penetrating radar unit that can be towed behind a vehicle during survey operations. The GPR system consists of two banks of seven antennas each with a fixed spacing of 0.4 feet between each antenna module. Data acquired by each of the 14 channels is spaced at 0.08 feet in the direction of travel. The central frequency and approximate bandwidth of each GPR antenna element is 400 MHz, a combination that provides both good penetration and high resolution. 518.783.9848, uit-systems.com



HURCO Technologies

HURCO's RIPCORD and Super RIPCORD ventilators have been engineered to quickly string sewer lines and create a safe, unob-

structed manhole work environment. OSHA requires continuous ventilation of manhole workspaces -- HURCO makes it happen safely and efficiently. The RIPCORD's "cross ventilation" application creates a safe, comfortable work environment as dust and dangerous gases are drawn away. RIPCORD creates an air dam effect that blocks sewer gases from migrating from adjacent pipes in nearly all manhole configurations. The unit itself is located away from the immediate workspace minimizing noise allowing for better communications and providing an unobstructed space for easier access and ample work area. 800.888.1436, gethurco.com

Panasonic Toughbook Notebooks Now With Intel Centrino 2, More Features

Panasonic Computer Solutions has upgraded its semi-rugged desktop replacement Toughbook CF-52 and mobile workhorse Toughbook CF-74 with new Intel Centrino 2 processor technology. In addition, video and graphics capabilities have been significantly enhanced, hard drive capacity has been increased to 160GB, and Wi-Fi performance expanded to include 802.11 Draft N.

Purpose-built with the mobile user in mind, both the 15.4-inch widescreen semi-rugged Toughbook CF-52 and Toughbook CF-74 with its outdoor viewable 13.3-inch display, incorporate a carrying handle and optional embedded access to mobile broadband networks from major wireless carriers. In addition, the drop- and spill-tested notebooks include durable design features such as magnesium alloy cases, flexible internal connectors, shock-mounted hard drives and LCDs and spill-resistant keyboards, with in-warranty reliability rates.

Warranty, support and professional services

Every Panasonic Toughbook notebook is sold with a standard three-year limited warranty which includes around-the-clock U.S.-based phone support for the entire life of the product. Panasonic customers enjoy an average call center hold time of less than one minute. In addition, in the unlikely event of a hardware-related failure, Panasonic covers the cost of overnight shipping to and from its national service center, where the average turnaround time for repairs is less than two days. Panasonic also offers a full range of professional services, including image management, asset management and on-line service analysis, to support enterprise customers before, during and after deployment.

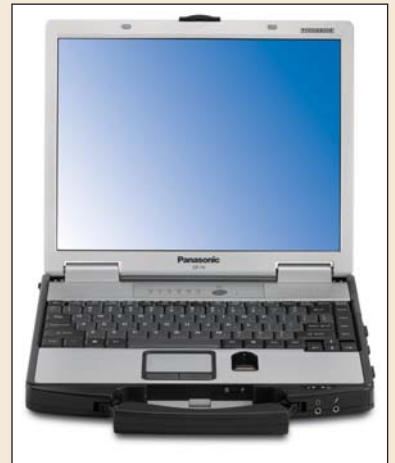
Pricing

The new Toughbook CF-52 is available in two configurations, value (estimated street price of \$1,949) or premium for improved video and system performance (estimated street price of \$2,849). The Toughbook CF-74 starts at an estimated street price of \$3,199.

All Toughbook notebooks are customizable and available through authorized Panasonic Toughbook resellers nationwide, "buy now" resellers accessible on-line via www.panasonic.com/business/toughbook/purchase.asp. 800.662.3537, panasonic.com/toughbook



Toughbook CF-52



Toughbook CF-74