

SHOW POSTSCRIPT

Although many CV Show launches were widely previewed, there are always exhibitors wanting to play their cards close to their chests. Brian Tinham (left) and Brian Weatherley (right) reveal their hands

ADGERO

French firm Adgero unveiled what it claims is the world's first operational hybrid electric energy-saver for semitrailers, in the form of its UltraBoost ST KERS (kinetic energy recovery system). The system was installed on an SDC 13.6 metre curtainsider in the livery of Eddie Stobart, which is conducting road trials, testing Adgero's claim of up to 25% fuel and emissions savings.

The system comprises an electricallydriven axle, powered by graphenebased ultracapacitors from Skeleton Technologies, both mounted under the



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Dearman - which is now partnering with Dawsonrentals truck & trailer to demonstrate zero-emission transport refrigeration - exhibited the revolutionary 'clean, cold' engine upon which it is based. The engine itself is fuelled by liquid nitrogen so delivers zero emissions, but is also ultraquiet and efficient.

Dawsonrentals says it is making Dearman-refrigerated vehicles available to operators, with managing director John Fletcher stating that the first unit will begin operations shortly with "a major UK commercial operator". A second phase of demonstrations is then due to commence later in the year. "There is an ever-stronger focus on the environment, and the need to cut emissions and boost efficiencies," he says. "We are

working to deliver access to the latest technologies, while also benefiting the community."

The Dearman transport refrigeration system emits no PM or NOx. As a result, Dearman says it can reduce a refrigerated truck's overall PM emissions by up to 90% and NOx by 70%. Series production of the new system is likely within 18 months heralding the greatest change to the sector in decades.

semi-trailer. Control is automatic, with acceleration delivered according to demand, but also potentially steering angle, gear selection and gradient - all via inductive CANbus loops. Motive power comes from a compact,

lightweight YASA motor/generator.

"Because our system can be retrofitted, it could rapidly impact fleet costs and emissions," says Adgero president Mack Murray. Full production is predicted by late 2017.



DEARMAN



"Because our system can be retrofitted to existing fleets, implementations could have an impact on fleet costs and vehicle emissions within a very short timeframe" Mack Murray

VISIONTRACK

Most of us have seen 3G cameras by now, but VisionTrack's VT2000 telematics device is interesting not least because it can transmit video footage using compressed data. A 10-second clip can be transferred in under 350kb. Simon Marsh, VisionTrack's managing director, says that means fleet managers can see greater volumes of archived and realtime driving footage. That not only helps with driver monitoring and training, but also means faster access to video and telematics data in the event of an incident



DON-BUR

Over on Don-Bur's stand, its novel 'plasma actuators', developed with scientists at Glasgow University, caused something of a stir. This system harnesses SDBD (single dielectric barrier

discharge), under which air between pairs of electrodes becomes ionised (plasma), causing an air flow of 12m/sec (43kph) that can be harnessed to control air movements and so counter aerodynamic drag.

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WHALE TANKERS

Whale Tankers' bright orange 44-tonne KaiserWhale - designed, engineered and built for national operator Hydro Cleansing's toughest assignments - was among the most impressive of trucks. KaiserWhale is a proven concept that combines jetting and vacuum operations for continuous water recycling, but this striking monster is the first to feature dual Kaiser 4000i vacuum ring pumps.

Hydro Cleansing managing director Steve Hoad, who specified the vehicle, says it can tackle clearance of anything from deep shafts to pumping stations. Impressive features - aside from its livery - include the dewatering decant pumps, each capable of shifting 2,000 lpm, and a hydraulically-driven screw compressor delivering 140 cfm at 7bar.



Don-Bur marketing manager Richard Owens explains that multiple plasma actuators could be positioned around a semi-trailer to mimic the effects, for example, of boat-tails, but without any risk of physical damage. The theory goes that, installed around the rear of a double-deck trailer, SDBD technology could transform fuel costs. As Owens puts it: "You can have your cake and eat it." Owens expects commercial availability by 2017.

KÄSSBOHRER

Having already offered step-frame lowloaders to British heavy hauliers,

Kässbohrer has increased its UK service network to 21 and is introducing products for the construction sector including a 13.6-metre K.SPW.XS heavyduty platform trailer with 30mm thick hardwood floor, post pockets and detachable front panel, along with chemical and powder tankers and a four twist lock skeletal for 40- and 45foot boxes.

Kässbohrer's Goch plant, in Germany, uses zinc-phosphate precoated chassis frames supplied by its Turkish parent company Tirsan, the largest semi-trailer manufacturer in Eastern Europe.

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"There is an ever-stronger focus on the environment, and the need to cut emissions and boost efficiencies... We are working to deliver access to the latest technologies"

John Fletcher

MAGYAR



Magyar's battery-powered electric pumping system on its Eco Friendly milk collection tanker means the tractor's engine is not needed for pumping power, so there's no PTO either. The benefits are ultra-low noise, fewer emissions and fuel savings. Its lithium battery pack, mounted on the offside of the chassis, is charged by the tractor while on the move.

The tri-axle 29,000-litre stainless steel insulated tanker, complete with Piper milk collection system and powered internal hose reel, has a Tridec command-steer trailing axle and lift-up front axle. It will shortly participate in a UK customer roadshow

CARRIER TRANSICOLD

At the NEC, Sainsbury's took delivery of the world's first temperature-controlled trailer with Carrier Transicold's

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SIGMAVISION

Sigmavision launched what it claims is the world's first 3D hand-held tyre scanner. Dubbed TreadReader, this is a compact and patented unit designed to measure tread depth on all vehicle types, from LCVs to HGVs, buses and trailers, even when wet or dirty. Managing director Andrew Pryce says it can reveal badly or unevenly worn tyres symptomatic of problems such as misalignment or worn suspension. Colour coded 3D scans enable optimal tyre husbandry.

The technology creates a 3D scan using 320,000 measurement points, delivering an all-round accuracy better than 0.2mm per tyre. Scans can be viewed on a tablet, mobile phone or PC, alongside calculated tread depths, and the system is compatible with Android, Windows or iOS.



prototype fridge unit that uses CO_2 as a 'natural' refrigerant. The 13.6-metre triaxle dual-compartment Gray & Adams trailer drew a lot of attention.

This closed-loop system is packaged within an existing Carrier Vector frame and powered by the fridge manufacturer's patented E-Drive allelectric system. Carrier Transicold points out that CO₂ has a global warming potential (GWP) of one, making it the benchmark for all other refrigerants.

CHEREAU

Making its NEC debut, Chereau's SmartOpen-C electric rear door - which opens above the roof and not inside the body - reflects increasing demand for low-noise bodywork and quieter urban deliveries. It opens or closes in less than 10 seconds (so internal temperatures are more easily maintained) and has already gained Dutch PIEK low-noise certification. An anti-trapping/pinch system is standard. Chereau can also fit noise-deadening floors to its bodies and semi-trailers.



MONTRACON

"Plasma actuators can be configured to mimic the effects of boattails on maximum height double-deck trailers, but without any risk of physical damage. So you can have your cake and eat it" Richard Owens

FELDBINDER

Feldbinder's 40m³ aluminium cement tanker for Damac tares at an impressive 4,600kg with BPW running gear, and features the latest emergency-stop system which immediately closes the product line valve and simultaneously opens an air valve to vent the tank in the event of a spillage or burst hose.

The German manufacturer also showed an edible oils tanker built for Cargill, with a full-length opening hose tray that allows the driver to inspect the hose in-situ, on the tray, rather than having to remove it from a hose tube.

CARTWRIGHT

Cartwright made its biggest ever splash with two stands showing off its broad portfolio, including its first ever fullyinsulated 11-metre curtainsider urban trailer for Culina (below), plus its latest



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Thanks to a system based on belt-driven alternators developed by International Refrigeration Cooling, Montracon can use its trailers' wheels to generate electrical power. Energy stored in a lead-acid battery pack can not only power a fridge but also a tail-lift – and even charge an electric pallet truck.

Obvious wins include lower diesel costs and less noise. Major fleet operator and project co-partner Fowler Welch will conduct trials with the prototype installation. The system weighs around 550kg and can be retrofitted, as is the case of the Fowler Welch unit.



insulated bodywork range for 3.5–7.5-tonne vans and light-middleweights.

The body on a Fuso Canter featured the rear sloping roof design developed for Cartwright's Cheetah Fastback trailers. The company's insulated conversion for a Mercedes Sprinter was particularly well-executed.

TIGER TRAILERS

Tiger Trailers' display was based around the second generation of its full-length hydraulic moving deck trailer. The design has already gained favour from home delivery specialist AO.com, for which Tiger builds double-deck trailers. Compared to a conventional step-frame, the 4.97-metre version seen at the NEC

offers a full 20% more load-fill space.

Tiger has also launched a double-deck trailer servicing operation with onsite maintenance and technician training, including as an embedded facility within existing fleet workshops. Since starting in 2014, Tiger has got some 1,200 trailers on the road.



