



Contractors Mechanical Plant Engineers

NATIONAL NEWSLETTER

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Welcome to another edition of your National Newsletter.

A belated “Happy New Year” to all our members. I am sorry it has been a couple of months since the last issue in October but this has been due to my ill health.

However, I am now back into the swing of things and can bring you some news from the Construction Industry which I hope you will find of interest.

David Nicholson
Newsletter Editor

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INDUSTRY NEWS

Hard hat fitted with sensor technology.

A new type of safety helmet is coming onto the UK market this year, one that is described as the world’s first with an integrated sensor.



From Scandinavia comes Båstadgruppen’s new Guardio Armet PRO helmet equipped with Quin sensor technology.

The helmet detects and records falls and impacts, and will even automatically call for help if necessary.

The intelligent sensor enables the helmet to measure motion and forces in three dimensions, 1,000 times per second, the manufacturer says. It monitors the safety of the wearer and in the event of a fall, an object falling from height or any other type of impact, analyses what has happened to determine whether help is needed.

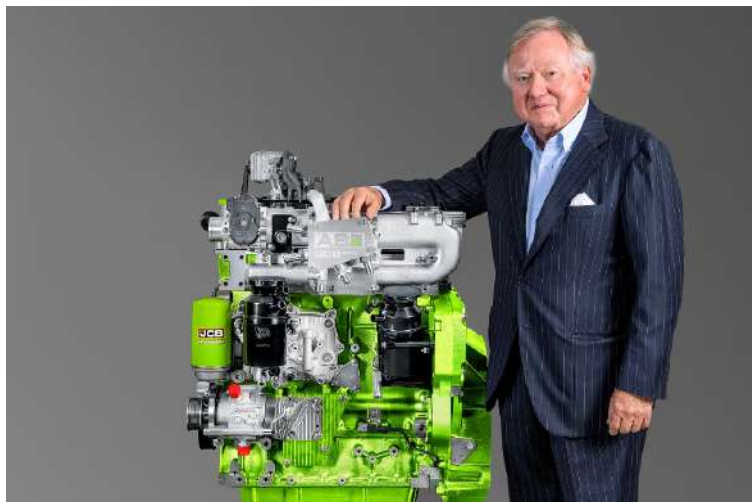
If the safety threshold is breached, via the wearer's cell connection, the Quin system sends out an automatic alert to the registered contacts detailing the location and nature of the detected event.

The Armet Pro with Quin can also track a worker's return to a safe zone, sending out emergency alerts in the event that the worker does not return as expected.

The Armet PRO was developed with cooperation from Swedish construction contractor Arcona to provide end-user insight into useful functionality.

JCB secures approvals for hydrogen engine.

Ten European countries have now authorised the use of JCB's hydrogen engine, with more expected to follow this year.



JCB claims to be the first construction equipment company to develop a fully working combustion engine fuelled by hydrogen thanks to a £100m development programme.

JCB has had a team of 150 staff working on its hydrogen engine for more than three years.

It has now secured type approvals from 11 licensing authorities across 10 European countries, so far, allowing it to be used

commercially in machines.

JCB chairman Anthony Bamford said: “To start the New Year with certification in place in so many European countries bodes very well for the future of hydrogen combustion technology. JCB has proved in recent years that it is a proper zero emissions solution for construction and agricultural equipment.

“This formal type approval/certification paves the way for the sale and use of hydrogen engines right across the UK and Europe. I couldn't have hoped for a better start to the year. Most of all, I am delighted for our team of British engineers who have worked tirelessly to reach this stage.”

The Dutch vehicle authority RDW was the first licensing authority to issue official certification, giving permission for the engine to be sold in the Netherlands. Other licensing bodies across Europe have followed RDW's lead, including Great Britain, Northern Ireland, Germany, France, Spain, Belgium, Poland, Finland, Switzerland and Lichtenstein. (Great Britain and Northern Ireland have separate licensing regimes despite being in the same country.)

JCB has already produced more than 130 evaluation engines, which are powering backhoe loaders, telehandlers and generator sets. Real-world testing of JCB's hydrogen equipment on customers' sites is now at an advanced stage and said to be "progressing well".

Electric roller makes UK debut.

What is claimed to be the world's first fully electric, 4.5 tonne road roller has arrived in the UK from China.



The Sany STR50E light tandem roller is described as the first in its weight class with fully electric drive and vibration.

Lay people may still call them steam rollers even though diesel has been the fuel of choice for decades. But with the world turning against fossil fuels, clean fuels are being increasingly adopted by construction machinery manufacturers.

Sany's new paving roller has a cobalt-free 60 kWh lithium-iron-phosphate battery from Chinese battery manufacturer CATL (Contemporary Amperex Technology Co Limited). The battery pack runs for between four and six hours, Sany says, before it needs recharging by the on-board charger.

The fully electric drive and vibration system of the STR50E allows for energy recuperation when changing from forward to backward movement and when braking.

The STR50E is the first zero tailpipe emission plant from Sany's Road Machinery division, with other machines promised for later this year. It follows the recent launch of Sany's electric SY19E and SY215E excavators.

Both the SY19E excavator and the STR50E roller will be exhibited by Sany UK at the EHS trade show in Coventry next month.

Local roads branded 'national embarrassment' as new funding model demanded.

The state of England's local roads is declining and the repair backlog has gone passed £15bn.



A report from the House of Commons public accounts committee (PAC) today calls out the Department for Transport (DfT) for not taking its responsibilities and use of public money on local roads sufficiently seriously.

Department officials admitted to the committee that government data on local roads were inadequate. According to government data, the condition of local roads is stable. But private sector surveys indicate that the condition of local roads is worsening, as public satisfaction falls and pothole-related incidents rise. With information only collected on unclassified roads on a voluntary basis from local authorities, the DfT admitted to the PAC that its data is not good enough.

The Asphalt Industry Alliance's 2024 annual local authority road maintenance (ALARM) survey put the cost of fixing the backlog of local road repairs at £16.3bn.

Over a billion pounds a year goes to local authorities as part of the government's funding to maintain local roads – but the PAC's inquiry found that the DfT neither knows exactly how local authorities spend its funding as it is not ring-fenced, nor what it wants to achieve with it. The report further warns that funding is not being targeted at where it is most needed. The DfT does not take into account traffic volumes, underlying road condition or local environmental conditions such as whether a road is prone to flooding.

The PAC report, Condition and maintenance of Local Roads in England, also criticises the short-term approach of central government funding for local authorities to repair local roads, which the DfT admitted to the inquiry is not best value for money. Providing only annual funding is likely to have pushed councils to focus more on reactive repair work, rather than preventing problems occurring in the first place. The committee report calls on government to simplify its funding to local authorities (currently given through 12 different funding pots) and to provide longer-term certainty on the amount and duration of funding.

More support and guidance must be provided to local authorities to deal with current and future challenges in maintaining local roads, in particular on how best to support safety and accessibility for all road users. The government should also be considering how best to manage and prepare for technology advances such as autonomous vehicles and the effect of maintenance on roads and bridges of heavier electric heavy goods vehicles, the report said.

Sir Geoffrey Clifton-Brown MP, chair of the public accounts committee, said: “The declining state of England’s local roads is a national embarrassment. As well as harming the prospects for our economy and communities’ own social wellbeing, highways riddled with potholes pose an increasing safety threat to road users. Alarming, however, not only is the state of our local roads on the downslope, our inquiry shows government are having to find out about these issues from industry bodies and road users themselves due to their own patchy data.

“This committee has long raised concerns around a failure across government departments to effectively fund and plan for the future, a theme that is certainly on show here, along with an overly tangled web of accountability. This committee shares our constituents’ frustration at these issues, and hope our recommendations go some way to help the government take better responsibility for them.”

The PAC report confirms what the Asphalt Industry Alliance has been saying for years. David Giles, chair of the Asphalt Industry Alliance, said: “The findings of the Public Account Committee’s (PAC) inquiry into local roads in England highlight the critical challenges facing our local roads, many of which our Annual Local Authority Road Maintenance (ALARM) survey has reported for many years.

“We were reassured to see that the PAC agrees that a step-change is needed. Its recommendations for longer-term and simplified funding streams so that local authorities can proactively repair and maintain local roads and deliver better value for taxpayers, is what we’ve been calling for.

“We also back its call for greater consistency in how road conditions are assessed, and how this could translate into needs-based funding, as well as the need to evaluate and revise local authority delivery approaches as a means of getting our roads back on track.”

“As the government considers its spending review it’s clear that the PAC’s recommendations need to be adopted in full if we want an improved local road network that is resilient and fit for the future.”



Highways specialist puts new roller to work.

Hertfordshire-based North Herts Surfacing has purchased the first JCB CT430-140 compaction roller off the production line.

North Herts Surfacing has put its new tandem vibratory roller to work on local authority highways maintenance contracts for Ringway Jacobs in Essex and Eurovia in Hertfordshire.



North Herts Surfacing director Leigh Candler said: “We were looking at options to purchase a heavier roller than our existing JCB 260-120 roller and were offered the first 430-140 which was a new size roller that JCB were bringing to the market.

“We are very happy with the performance so far and it gives us the option of a slightly bigger and heavier machine when we are on larger jobs and when we are laying larger tonnages. Our operators are

used to the 260-120 rollers so found the 430-140 easy to use from day one and JCB rollers are pretty much maintenance free.”

Supplied by dealer Watling JCB, the CT430-140 has been introduced alongside the CT380-130 tandem vibratory roller as the latest additions to JCB’s compaction range, completing the line-up of sub five-tonne tandem rollers. Designed primarily for the rental industry, the two machines join the CT160-80/100 and the CT260-100/120 models.

The CT430-140 weighs in at 4.5-tonnes and offers a linear load of 16.1 kg/cm. The machine has a vibrating frequency of 50-60Hz and a 0.50mm amplitude, delivering a centrifugal force of 44-63kN.

UK Power Networks and Falco trial e-diggers.

UK Power Networks and groundworks contractor Falco Construction have collaborated to bring battery-powered excavators to projects on the power network.



A pair of fully-electric Takeuchi TB20e mini excavators are being used in a two-year trial, working on excavation work in London, the southeast and East Anglia.

Falco is a framework contractor for UK Power Networks providing groundworks to facilitate the repair and maintenance of its assets.

If all works out, Falco intends to invest more than £6m in replacing its fleet of 120 diesel-powered excavators with electric ones.



The lithium-ion batteries of the Takeuchi TB20e s last up to five days before needing to be re-charge, the manufacturer claims, and then they are back to capacity within hours.

Falco Construction support services director Alan Seyfi said: “The Takeuchi Model is the first electric mini-excavator we have seen that performs comparably

with more traditionally-powered diggers. We estimate that replacing our current 120-strong fleet with TB20e’s would directly remove over 200 tonnes of CO2e emissions each year and be a major step forward on our road to net zero.”

Katherine Jennings, continuous improvement manager at UK Power Networks, said: “We are incredibly proud of this trial and excited about the initial positive findings. E-diggers could ultimately be a huge enabler in UK Power Networks and Falco achieving their joint net zero commitments.



“We are passionate about partnering with our suppliers to drive continuous improvement in the sustainability sphere. This is critical, as meaningful change and a just transition can only come about through shared goals and joint initiatives.”





Approved



Contractors Mechanical Plant Engineers

National Chairman

David Hodges - etpl@hotmail.co.uk

Tel: 01663 745034

National Vice-Chairman / Chairman Elect

Michael J Farrington - info@mjfarrington.co.uk

Tel: 023 8084 4588

National Secretary

Grace Tidbury - cmpesecretary@gmail.com

Tel: 07473 264539

National Registrar

Denise Holcroft - denise@vmrtraining.co.uk

Tel: 01772 782455

Newsletter Editor

David Nicholson - cmpepreston@gmail.com

Tel: 07903 848200

CMPE Website

www.cmpe.co.uk



VMR
Training Services

01772 782 455 : 01772 783 533