



Contractors Mechanical Plant Engineers

NATIONAL NEWSLETTER

Christmas Message from the National Chairman

Dear Member,



Here we are in December with Lockdown just about to be eased. It is 2.30pm, it is dark, the lights are on and it is raining. Can it get any worse, I hope not.

Paulene and I are looking towards Christmas and trying to figure out what is going to happen. Normally it would be family on both days but it is looking like we will be on our own which is the best solution as it's no good giving in too soon.

Your National Officers are working away in the background helping to update the members' lists for each branch. Now that we have a National Newsletter we need your details to be correct so that you receive your copy.

I hope your Christmas is a happy and joyous occasion and I hope to see you sometime in the new year.

Best regards,

Malcolm Saddington.
Acting National Chairman.



Unusual Public House Names by Bob Nugent, Mid-Shires Branch

We have all seen the Royal Oak, Red Lion, Blue Boar, Kings or Queens Head pub signs and all the familiar names. But what about "The Plug and Feathers"? I'll give you a clue, the sign was seen at Glapwell.

When I lived in North London I used to pass "The Case is Altered" pub. The sign depicted two bewigged Barristers, and for many years the name intrigued me. Apparently the name goes back to 1609 and playwright Ben Johnson. Any ideas?

Back to “The Plug and Feathers” at Glapwell. The pub is a short walk from the site of two defunct coal mines. The name goes back to the mining, tunnelling and quarrying industries. To split rock you would first drill a hole, by hand or mechanical means, insert two pieces of steel or “feathers” then place a wedge or “plug” between the feathers and drive the plug in with sledge hammers. Eventually the rock would split, you might have to add more feathers but the plug was used throughout the procedure. Hard, back-breaking work. I have tried to find a photo but to no avail.

When I went to the City of London Barbican Arts centre site many years ago, the pile caps were being broken so the re-bar could be tied in. The site was surrounded by occupied apartments. It was rumoured that the residents were going rent free if a noise complaint was accepted by the City. You couldn't start any engine or make any noise before 8.00am and everything stopped at 6.00pm. Erecting tower cranes at the weekend was a nightmare. Monday morning would bring an avalanche of complaints about noise. So breaking concrete piles with a pneumatic breaker was a constant problem. Then from the R & D department came a possible solution, a silent breaker. A demonstration was arranged, the breaker was a hydraulic pump driving a hydraulic spear. A “plug and feathers” driven by hydraulics. The engine, an AA1 Petter, was never strained and potted along quite quietly. A brilliant bit of kit. Of course, the rock drill for making the hole in the pile cap was as noisy as ever. No amount of noise suppression made any difference.

Out and About by Bob Nugent, Mid-Shires Branch

During October we visited our daughter, she lives in the Peak District. Yes, we observed social distancing, wore face masks, and sanitised our hands frequently, all the time obeying the rule of six. We also visited the Avro Heritage Museum.

This small museum is based at the old Woodford aerodrome near Stockport which was the site of the A V Roe works. All the works buildings have long gone, the main runway nearly extinct. Instead of an airfield there is a housing estate.

A two storey modern building houses the AVRO Heritage Museum. Pride of place is taken by the Vulcan B2 Bomber in Anti Flash White livery. There are numerous static cockpits to sit in and countless aircraft models. These range from the early days of aviation to the modern day.

Obviously, the history of A V Roe is covered extensively, and this seems to run parallel with the British Aircraft Industry. The museum is staffed by former employees who bring everything to life. We sat in the cockpit of a VC10 while our guide explained the controls etc, with little anecdotes from his working life.

As with all museums everything is a work in progress. The Vulcan is due to be wired so that cockpit tours will give a better experience with lights flashing, of course, Covid 19 will delay all upgrading of exhibits. The Avro Heritage Museum is at Woodford near Stockport. The SatNav postcode is SK7 1QR. At present the museum is open Sat and Sun. You can pre-book 2 hour slots. Tel 01625 877534.

Admission £8.00. Concession £6.00. Children (11-16) £4.00.

Well worth a visit.

CMPE People by Bob Nugent, Mid-Shires Branch

I was talking to Jimmy Jump (North West) last week and he told me that Jimmy James (North West) had celebrated his 90th Birthday. They are all keeping well at the moment. Noreen Wreglesworth and Brenda Wynne (both Manchester members) keep in touch, sharing a Friday evening tippie and happy memories.

An e-mail from Margaret and Malcolm Webb (Sussex) informed me of the passing of Mrs Betty Webb ex Sussex Chairlady. Many of us will remember a trio of Sussex ladies who formed the backbone of the Sussex Branch.

Mrs Betty Webb, whose weird and wonderful Raffle machinations baffled everyone at the Sussex Branch Dinner Dance.

Mrs Janet Searle, again an ex Sussex Chairlady. Together with husband Les, every August, Janet allowed the Branch to hold a BBQ in her garden. The food was a minor part of the evening, a row of mini excavators and various other attractions, but for me, the steam driven bus and tour of Horsham was the best. At the end of the evening Janet always made a point of thanking everybody for attending.

Last, but not least, Pat Moore committee member extraordinary. I can't recall if Pat was ever Branch Chairlady but she must have done every other role. Pat is still there, helping to hold the Branch together.

Wendy Coffey tells me that Keith has, like most of us, his good days and not so good.

I spoke to Frank Fiveash today and apart from fairly routine hospital visits seems to be quite well.



Christmas Quiz 2020



Bob Nugent has been very active in sending items for inclusion in this newsletter and he also sent in this quiz which we are offering the following prize to one lucky winner - your choice of either a:-

£25 Amazon E-Voucher

Or

£25 Marks & Spencer E-Voucher

Please forward your entry by email to cmpepreston@gmail.com please include your answers along with your name, branch and your contact telephone number.

There can only be one winner, so in the case of a tie the winning entry will be drawn out of a hat.

Closing date for entries - Friday 18th December.

Quiz

Name the book titles these first lines come from:-

1. Call me Ishmael
2. It is a truth universally acknowledged. That a single man in possession of a good fortune, must be in want of a wife.
3. There was no possibility of taking a walk that day.
4. In my younger and more vulnerable years my father gave me some advice that I've been thinking over in my mind ever since.
5. Last night I dreamt I went to Manderley again.
6. It was a bright cold day in April, and the clocks were striking thirteen.
7. Once there were four children and their names were Peter, Susan, Edmund and Lucy.
8. It was love at first sight.
9. All children, except one, grow up.
10. The past is a foreign country; they do things differently there.
11. It was the best of times, it was the worst of times.

And only one last line:

12. God bless us all, everyone.



Industry News

JCB unveils battery-powered dumper and telehandler.



JCB has further strengthened its commitment to exploring alternative fuels with the launch of two new all-electric machines and a universal fast-charger for its emerging E-Tech range.

At a virtual press conference witnessed by around 250 journalist from around the world, the Rocester-based manufacturer repeatedly emphasised its determination to follow the 'road to zero' with each new model clearly branded '100% electric; zero emissions'.

The event saw the unveiling of JCB's first fully-electric, battery powered Loadall telehandler, the 525-60E.

A direct equivalent of the existing diesel-powered 525-60 model, the new version has two electric motors – one for driveline, the other for lifting operations – powered by a 96-volt lithium-ion battery.

The 17kW drive motor provides tractive force to the axles through a permanent four-wheel drive dropbox. The second, 22kW, motor powers the hydraulic system via a fixed-displacement gear pump, providing up to 80 litres/min of flow.



Above: JCB's new 525-60E electric telehandler has a 96-volt lithium-ion battery driving two motors

The hydraulic system is completely new and, unlike that of the diesel-powered 525-60, flow is proportional to the position of the joystick and not to engine (or motor) rpm.

The hydraulic system also features 'smart regeneration' with power recovered during boom lowering and retraction fed back into the battery.

Similarly, the traction drive motor uses regenerative braking to top up the battery.

According to JCB's chief innovation and growth officer, Tim Burnhope, the 525-60E has exactly the same performance characteristics of its diesel-powered predecessor, including a maximum lift capacity of 2,500kg and the ability to lift 2,000kg to the maximum 6m height.

The new machine offers "a zero emissions load-handling solution with no compromise in performance of productivity," said Burnhope. Cycle times are similar to those of the diesel version but the new electric model is much quieter, he added.

Joining the new Loadall is JCB's first all-electric site dumper, a one-tonne high-tip model designated the 1T-E. Described as the ideal partner for JCB's 19C-1E electric mini-excavator, launched in 2018, this is essentially a battery-powered version of the diesel-powered 1T-2 model.

Power is supplied by two 5kWh lithium-ion batteries through a 7kW hydraulic motor. Instead of the individual hydrostatic wheel-motors of the 1T-2, the electric version uses conventional drive axles and a drop box to deliver full-time all-wheel drive.

A second hydraulic pump is used to power the machine's standard hydraulic circuit for steering and skip-lift. The operator is protected with a standard roll-over protection (ROPS) frame and LED amber and green lap-belt beacons are fitted to ensure the operator is securely seated when working.

Doosan offers semi-automation readiness.



Doosan is offering a Leica Geosystems 2D/3D semi-automation kit as an option on its 25-tonne DX255LC-5 crawler excavator.

The machine control system automates the movement of the boom, bucket, tilt and tilt rotator functions to make operations simpler and more accurate.

The collaboration between Doosan and Leica Geosystems means that customers can now order the DX255LC-5 excavator pre-installed with the ready kit for Leica 2D and 3D machine control systems via Doosan Smart Solutions.

The kit includes all the components (main brackets, wires and sensors) required to make sure the excavator is ready for the installation of the machine control solution and the semi-auto functionality, which gives customers the opportunity to install the complete system at a later date.

Builders' licence campaign collapses.



The Construction Licensing Task Force pictured at an earlier meeting

Plans to make every jobbing builder have to pass a test and buy a licence to trade have been shelved.

The Construction Licensing Task Force, instigated by the Federation of Master Builders (FMB), has announced what it calls 'a tactical pivot'.

It has dropped its Licence UK Construction (LUKC) campaign for mandatory licensing across the sector and decided instead to swing behind the existing Trustmark quality scheme.

The task force has realised that its ambition for a new law to be passed making builders' licenses compulsory, and creating a whole new tier of regulation and bureaucracy for the industry, was not supported by government.

It had a vision of no one even banging nail into a wall or changing a washer without a licence. The Covid-19 pandemic has provided cover for the collapse of the campaign.

The task force's 5th November newsletter said: "Largely due to Covid-19, but also in part due to the current government's reluctance to introduce widespread regulation, it was decided that the campaign should tactically 'pivot' in the short term. Instead of wholesale mandatory licensing across the sector, the government should be lobbied to make any government grants schemes for refurbishments and energy efficiency improvements conditional upon the suppliers having an approved quality mark, such as Trustmark. This was already the case with the Green Homes Grants Scheme but should become accepted policy for any further schemes or initiatives."

Thus the campaign has moved from pushing for a builders' licence scheme to pushing for a requirement for Trustmark registration to qualify for government grant schemes.

The task force agreed that Brian Berry, chief executive of the Federation of Master Builders, and Simon Ayres, chief executive of Trustmark, "should work together over the coming months to determine how Trustmark could be altered to better fit the short-term requirements of the campaign".

This 'pivot' was supported by Fergus Harradence, a civil servant from the Department for Business, Energy & Industrial Strategy who sits on the task force. He "indicated this to be a sensible approach" note the minutes of the last meeting, dated 22nd October.

However, while the Licence UK Construction (LUKC) campaign has climbed down it has not entirely packed up: "Task Force not to lose sight of LUKC's longer-term strategy for a more formal licensing scheme," the minutes note.

What was the plan?

The overriding ambition was to stop incompetent or dishonest people working in the industry.

More formally, the primary objectives were listed as:

- to improve consumer protection and trust, and drive out rogue traders
- to improve **health and safety** for workers and the public
- to drive up technical and business standards in the industry
- to prepare the industry for future changes and challenges (particularly around energy and sustainability).

It was proposed that the licensing system would “cover any paid job that affects or changes the physical fabric of the building”. It would exclude DIY, but would include domestic repair and maintenance work, and handyman services that materially impact the fabric of the building or have any health or safety implications. For example, just hammering a nail into a wall can sever a cable and would therefore be covered. It appears that they had decided not to include building work conducted in the garden or to a driveway within the scheme.

Every building business entity regardless of size, including sole traders, across the entire UK would have their work assessed periodically and would have to pay for a licence to trade.

Unlike a driving licence, a building licence would have to be renewed every three to five years, with fees ranging from £150 to £1,000 depending on the size of the business.

There was always the thinking that Trustmark already offered a route to mandatory licensing. A document prepared by campaign advisor Toby Lloyd, who describes himself as an independent housing policy consultant, advised the task force that: “The well-established and recently expanded TrustMark framework provides a comprehensive set of business, conduct, and competence standards, and a system for enforcement and redress. Registration with TrustMark should be made a mandatory requirement of trading in the UK construction sector: this will in effect make TrustMark registration a licence to build.”



Doosan unveil new demolition excavator model



South Korean manufacturer expands equipment offering with top-of-the-range DX530DM

DOOSAN have strengthened their high-reach demolition excavator range with the launch of the new DX530DM. Like the DX235DM model, which was launched earlier in the year, the DX530DM offers increased operational flexibility, thanks to a modular boom design and hydraulic lock mechanism.

According to Doosan, these innovative features help make it simple to change between a demolition boom and an earthmoving boom for different types of work on the same project.

Another key feature of the DX530DM is the hydraulically adjustable undercarriage, which allows the machine to extend to a maximum width of 4.37m to provide optimum stability when working on demolition sites.

A lot of effort has also gone into the transportation of the high-reach excavator – the width of the undercarriage, for example, can be retracted hydraulically to 2.97m in the narrow width position.

When equipped with the digging boom in the straight configuration, the DX530DM can work to a maximum height of 13.5m. For enhanced efficiency, the multi-boom design allows the earthmoving boom to be mounted in two different ways, providing increased flexibility and a total of three different configurations on the same base machine.

Typical of the design of all new Doosan demolition excavators, the DX530DM machine has a high visibility, tilttable cab offering a 30-degree tilting angle. Other key features of the Doosan high-reach machines include: a cabin-mounted falling object guard (FOG); safety valves for the boom, intermediate boom and arm cylinders; and a stability warning system.

The top-of the-range DX530DM is expected to be joined by a third model in the Doosan demolition excavator line-up – the DX380DM – which will be launched in the first half of 2021.



Uni spin-out hopes to commercialise road repair robot.



The University of Liverpool has spun out a new company – Robotiz3d Ltd – to develop road repair robots.

Robotiz3d Ltd hopes to commercialise patented research from the university's engineering robotics laboratory. The technology uses artificial intelligence and robotics to detect and repair road defects, including pot holes and cracks.

The company is a joint venture between the University of Liverpool and A2e Ltd, an electronics company, backed by the university's enterprise investment fund, alongside private equity investment from A2e Ltd.

Among the founders are Paolo Paoletti and Sebastiano Fichera from the university's school of engineering, who have been developing and trialling the technology for four years.

Dr Paoletti, who will serve as chief technology officer for the company, said: "Robotiz3d Ltd will develop an artificial intelligence (AI)-driven robotic system to address the national and international potholes problems. The proposed system will be able to autonomously detect and characterise road defects such as cracks and potholes, assess and predict the severity of such defects and fix cracks so that they do not evolve into potholes."

Technical director Dr Fichera added: "Current methods to detect and repair of potholes are labour intensive and as such are slow, unsafe, and costly to the economy and environment. The new technology we are developing will make road maintenance tasks faster, cheaper, and cleaner and ultimately make roads safer and more accessible."

Also involved is tech entrepreneur Lisa Layzell, one of the co-founders of Sci-Tech Daresbury in Halton, Cheshire, where Robotiz3d is now based.

She said: “This is an exciting new spin out to take forward. The team at Robotiz3d has the expertise and experience in robotics and AI to deliver the project and introduce world-leading innovation to the management of roads and highways. We have developed a robust business plan to take forward the portfolio of Robotiz3d envisaged products.”

Bobcat entering European wheel loader market.



Company launching new compact wheel loaders (CWLs) and new small articulated loaders (SALs)

Adding to their current European compact loader line-up of skid-steers, compact track loaders, mini-track loaders and telescopic loaders, Bobcat are to extend the range with the introduction of compact wheel loaders (CWLs) and small articulated loaders (SALs).

The company is entering the CWL market with two models, the L65 and L85, designed and built at the company’s campus in Dobris, in the Czech Republic. Offering 41kW (55hp) of engine power, the 4.5-tonne L65 has a bucket capacity of 0.6–

1.0 cubic metres, a maximum tipping load of 2.6 tonnes and maximum travel speed of 30km/h. The 4.8-tonne L85 has 51kW of engine power, a bucket capacity of 0.8–1.2 cubic metres, a maximum tipping load of 3.1 tonnes and a maximum speed of 30km/h.

Bobcat loader product manager Jiri Karmazin said: ‘With our new CWLs, you can get any job done thanks to the combination of a powerful Bobcat engine and a well-balanced hydraulics system. Bobcat CWLs can also be adapted to different applications with a wide range of Bobcat-approved attachments. The Bobcat CWL range is built using well-proven components, renowned suppliers and processes used in other Bobcat products.’

As with the CWLs, Bobcat are entering the SAL market with two models, the L23 and L28, though these are designed and built by the company in Bismarck, North Dakota, in the US. With the new SALs, Bobcat say the traditional attributes of high performance in a compact size, agility and versatility are now complemented by a light touch on the ground and increased lift capacity for lower-weight machines.

Both machines achieve minimal ground disturbance through their use of an articulated joint, which allows the rear tyres to match the front tyre path when turning, and both offer 18kW (25hp) of engine power and a maximum travel speed of 13km/h. The 1.7-tonne L23 has a bucket capacity of 0.2–0.4 cubic metres and a maximum tipping load of 1.3 tonnes, whilst the figures for the 1.9-tonne L28 model are 0.3–0.5 cubic metres and 1.4 tonnes respectively.

Bobcat loader product manager John Chattaway said: ‘The high lift capacity offered by Bobcat SALs compared with their machine weight is ideal for lift and carry operations in compact areas. The extendable boom on the L28 further simplifies the placement of loads which is also enhanced by the all-round visibility. Counterweight options allow our SALs to be customised to give users the capacity they need for a particular application.’

Bobcat will provide more detailed specifications for the CWL and SAL ranges at the commercial launch date, which is planned for early 2021.

Articulating Genie TraX comes to Europe



The Terex Genie Z-62/40 articulating boom is now available in TraX version, with tracked triangular wheels, throughout Europe.

There are already five Genie telescopic track-mounted models but the Z-62/40 TraX is its first articulating boom lift model.

The Genie Z-62/40 TraX boom lift has the same specification as the standard model – maximum working height of 20.87m with 12.42 m of horizontal outreach – but with better rough terrain capability due to the hybrid rubber tracks for increased flotation and traction.

Unlike traditional steel tracked crawler booms, the Genie Z-62/40 TraX machine can be used in most applications like a wheeled machine allowing operators to get maximum use on site.



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