

engcon NEWS



TILT & ROTATE

No 1 | 2019



**EVERYONE TALKS
ABOUT ZERO TOLERANCE
FOR ACCIDENTS,
BUT FEW DARE DO
ANYTHING ABOUT IT**

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Everyone talks about zero tolerance for accidents, but few dare do anything about it

And so it's happened again. Since my last editorial just before Christmas, which addressed safety levels on excavator quick hitches, yet another fatal accident has occurred. This time it happened in Sweden. I don't know all the circumstances surrounding the accident, but they're probably not all that important for the people who lost a family member, friend or workmate. I suffer with everybody who loses someone close in an accident, no matter where or how it happens. But beyond that, I also think of the person at the controls or behind the steering wheel. Whether the operator had a part in the accident or not, sentence has already been passed. Spending the rest of one's life wrestling with what might have been done differently is something I would wish on no one. I dare say the operator never wants to see an excavator again. And making the usual trite comment that it's all down to the human factor will do nothing to stop the next accident. All of the excavators at our workplaces today are built according to the same established principles and standards. What's worse, almost all of the machines supplied today work in the same way. Well, is this enough? If it is, all of the incidents and fatal accidents have been in vain.

This is precisely what I want to change. Engcon has technology that can assume parts of the operator's responsibility when it comes to connecting tools to an excavator correctly, every time. It means unless you connect a tool correctly the excavator will not work, and you cannot disconnect a tool if it's in the wrong position, like above someone's head. Engcon's quick hitch means the operator simply cannot make a mistake. Simple! All we need to do is get the technology out to all the excavator owners and dealers. Everyone talks about zero tolerance for accidents at the workplace, but few dare do anything about it. Engcon is using every means and effort to sell safety to our customers, but there is great inertia and it's hard to break ingrained habits. People use arguments such as extra expense and more installation time to conceal their fear of anything new.

So it's all the more gratifying to finally succeed thanks to two equipment dealers who've chosen to install Engcon's fail-safe QSC lock system as standard on their equipment. Maskinia in Linköping has chosen to install our full system in its Doosan and Case machines, and Sundahls Maskin in Växjö has done the same for its Atlas machines. You can read all about why they took this bold decision elsewhere in this issue. We bid them welcome to our family and thank them for helping us in our struggle to achieve safer workplaces and for sharing our concerns for all the operators who juggle thousands of kg above the heads of their workmates on a daily basis.

It proves there's hope for a better future and a safer 2019.

Stig Engström

Owner and founder of Engcon



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**STANDARDISED LOCKS
SAFE QUICK HITCHES
ARE THE NEW STANDARD
AND CASE EXCAVATORS**



Peter Strand is happy to contribute to safety out on construction sites, where Case excavators equipped with Engcon hitches and tiltrotators are now also fitted with QSC and Q-safe.



WORKING AND S D FOR DOOSAN IN SWEDEN

Carl-Johan Sunnerfjord (right), together with plant fitter and union safety rep Anders Ahlström (left) and foreman Daniel Magdesjö. Because the new standard is to fit Doosan excavators with Engcon's standardized QSC quick hitch locks and Q-Safe safety hitches (when they're fitted with Engcon hitches and tiltrotators), Maskinia makes them safer.

Maskinia AB...

... is a privately owned operator in the Swedish construction equipment market. The company has its main facility in Linköping, as well as sales, spare parts and service in Staffanstorp and Järfälla, and a planned facility in Jönköping. There are also independent Case and Doosan dealers around Sweden. Doosan tracked excavators range from 1 tonne to around 80 tonnes, and wheeled excavators from 6 to 23 tonnes. Case tracked excavators range from 8 tonnes to around 80 tonnes. Maskinia also sells wheel loaders, bulldozers, graders, skidsteers and dumpers. In 2018, Maskinia had sales of SEK 375 million, and it has grown on average by 20 per cent per year for the past eight years.

"We intend to take the lead in technological development, and so we're taking yet another step forward on the issue of safety. As of this year, standardised quick hitch locking and safe quick hitches are standard equipment on Case and Doosan excavators fitted with Engcon tiltrotators."

So say Maskinia's two sales managers, Carl-Johan Sunnerfjord and Peter Strand. Sunnerfjord is in charge of Doosan sales, while Strand is in charge of Case. Both have embraced vision zero as launched by Engcon together with its QSC technology, i.e. the vision of zero accidents involving dropped tools.

"When the standardised QSC locking system is fitted to a machine, the risk of forgetting to lock a bucket or tiltrotator in place is eliminated. The risk of forgetting that the bucket lock is open is also eliminated, as is the risk of unintentionally opening it. Now, locking and unlocking can only take place with ground contact. It's an intelligent, disciplined safety system that eliminates the risk of human error.

Maskinia has a clear, well-thought-out excavator sales strategy. This is essential, as the company is the general distributor for both Doosan and Case, who can be regarded as competitors.

"But in actual fact, the different models from Doosan and Case complement each other perfectly. We have no internal competition problems at Maskinia. On the contrary, we have an open approach and a goal-oriented strategy whose daily guiding principle is customer focus. Our goal is to offer every construction plant contractor the best solution in each individual case," say Sunnerfjord and Strand.

The strategy covers quality, the work environment, operating costs and safety.

"We want to be market leader when it comes to offering the best and safest equipment," they tell us.

So when Engcon offered the QSC and Q-safe safety solutions and linked them to its vision zero for accidents involving dropped tools, they were sold on the idea. Maskinia have adopted the safety solution as its very own standard.

"We build and equip all of our machines with a 'Sweden kit'. This includes e.g. central lubrication, cold climate heating package, ample work lights, tow hitches on wheeled excavators, and other equipment. QSC and Q-safe are now included in our Swedish standard.

Carl-Johan Sunnerfjord and Peter Strand emphasise that Maskinia's overall safety thinking is an important part of the company's customer focus.

"Because we work for our customers' best, we're keen to ensure that equipment owners, operators and personnel working close to the equipment do not suffer accidents, or risk causing accidents. Every accident risk must be eliminated to the greatest extent possible," they insist.



bauma

8-14 April 2019, Munich

WELCOME TO ENGCON & BAUMA

Bauma 2019, the biggest equipment exhibition of the year, will take place 8-14 April in Munich, Germany.

It's also one of our biggest events of the year, and we won't be holding back.

We'll be showcasing our **latest products**, one of which is a **global first** that together with our modern tiltrotators and Q-Safe™ quick hitch makes excavators even safer and more profitable.

Welcome to **stand FM.708/3** to see our global first, other products and meet our team, who will be happy to tell you about our products and explain why our entire offer makes excavation a profitable, safe business.

And we will naturally be **demonstrating** our products live and offering light refreshments.
Welcome!

Welcome
to stand
FM.708/3

USED ENGCON PRODUCTS AT EXCELLENT PRICES!

Following yet another year of exhibitions and product demonstrations our warehouses are well stocked with use products at excellent prices. We have everything from lightly used products to completely unused products only used as exhibits. Full factory warranties naturally apply to unused products, and everything is available for immediate delivery.

Don't delay – visit used.engcon.com to find your bargain



Engcon develops low-flow excavator-mounted compactors



Engcon is launching a newly-developed series of low-flow compactors that can be powered via tiltrotators.

Engcon has manufactured compactors for excavators since the end of the 1990s, but their high hydraulic flow meant they could not be connected directly to the tiltrotator's extra outlet and so could not be rotated.

The new series' low hydraulic flow will mean excavator-mounted compactors can be used in many more environments, as well as making excavators even safer and more efficient.

In addition to the improved working environment and reduced risk of personal injury, Engcon's low-flow compactors can be used on inclines where conventional soil compaction with rollers or hand-

operated compactors is not possible. This includes everything from ordinary road embankments to compaction around bridge supports and erosion protection along watercourses.

Improved safety

"Combining compactors with excavators is ideal as this can substantially improve site safety. Ground workers currently have to use compactors directly in excavation sites, and when compacting in deep excavations there is a great risk that the vibrations from the compactor will cause the shaft to collapse," says Johan Johansson, designer and project manager

for Engcon's new low-flow compactor series.

"Our new low-flow compactors are a giant stride forward for excavator-mounted compactors, and offer operators the potential to transform site safety and efficiency," adds Johan.

The series will include three models – the PC3500, PC6000 and PC9500. PC stands for Plate Compactor, while the numbers indicate the compaction force in kg for each of the compactors.

The new PC3500 compactor series can be seen in action at Engcon's stand (No FM.708/3) at the Bauma 2019 exhibition in Munich from 8-14 April.

Engcon's lighter pallet fork improves load visibility and weight capacity

Engcon is launching lighter versions of its hydraulic pallet forks. The new pallet forks improve tipping loads and increase load weights for excavators in the intermediate 6-12 tonne range.

Pallet forks for excavators are an increasingly popular tool. When combined with a tiltrotator, they improve an excavator's utility markedly. In many cases, excavators can replace wheel loaders or forklifts, as they can load and unload goods from trucks and shift pallets of goods. Thanks to the tiltrotator, the excavator need not be on the same level as the pallet, as the forks can be tilted and rotated to assume the correct position. Nor does it need as much space when a wheel loader or truck is unloaded or loaded as the excavator can remain in the same position during unloading and loading.

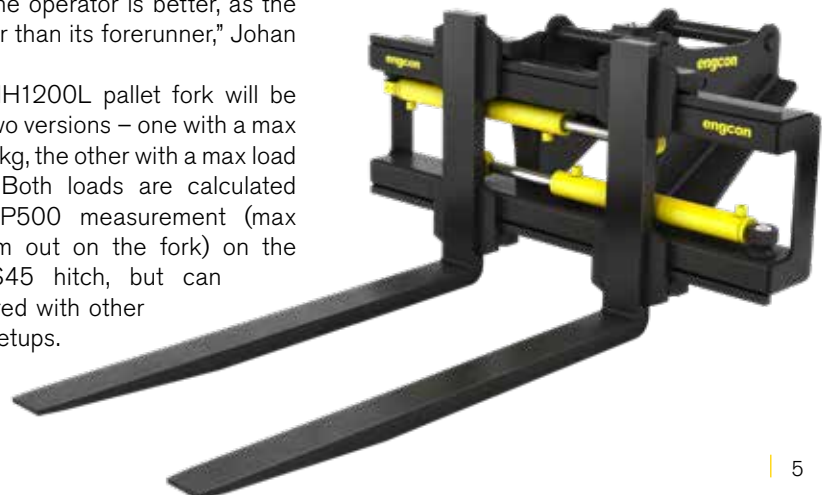
"Following the increased use of pallet forks for excavators, we also saw a growing need to adapt them for smaller excavators, so we developed the GHH1200L (Light)," Engcon design

engineer Johan Johansson explains. The focus on increased load weight is about safety as well as capacity. "Our new pallet fork is more than 100kg lighter than its predecessor. This is a considerable difference for an excavator weighing 6 tonnes and using its full reach. Not only are the new pallet forks lighter, but visibility for the operator is better, as the frame is lower than its forerunner," Johan adds.

Engcon's GHH1200L pallet fork will be available in two versions – one with a max load of 2,900kg, the other with a max load of 4,700kg. Both loads are calculated using the TP500 measurement (max load 500 mm out on the fork) on the standard QS45 hitch, but can also be ordered with other attachment setups.

The GHH1200L uses hydraulics to adjust the fork spacing, and comes with Engcon's automatic oil connection system, EC-Oil, as standard.

The GHH1200L will be launched at the Bauma 2019 exhibition in Munich from 8-14 April, when it will be available for immediate order.



BIG DIG DAY



**KETTERING
26TH & 27TH APRIL**

Try out a wide range of machines of different sizes and with a wide range of engcon control systems!

The Engcon Big Dig Day – Kettering takes place between the 26th-27th April at Wicksteed Park in Kettering. Please fill in the form on www.engcon.com/bigdigday to register your interest in the event. The first 100 registrations will be entitled to free parking and will also qualify for discounted entry wristbands to Wicksteed Park.

LOCATION

Wicksteed Park, Barton Road, Kettering, NN15 6NJ

DATES

Friday 26th – Saturday 27th April (10:00 to 17:00)

Wicksteed Park



Let the family enjoy a day out at Wicksteed Park while you try out our tiltrotators. A limited number of discounted wristbands for park available for early registrations. Please enquire for more information.

Only competent excavator operators will be allowed to operate machines!

engcon[®]



ENGCON REBOOTS THE BACKHOE

The backhoe loader, once 'the machine' on a building site has been largely displaced by both the crawler excavator and its wheeled counterpart. While sales by the pioneer of the concept, JCB, still remain buoyant, younger operators tend to favour the 360 degree machines instead.

One operator still in love with the backhoe is Robin Webber of I J Webber and sons. It's a family-run business originally started by Robin's father, undertaking farm maintenance and agricultural work. Their current fleet numbers small mini excavators to 13 tonne machines and a JCB 4CX, something which remains the operating domain of Robin

The company's latest purchase is yet another JCB 4CX, this time the ECO version complete with servo controls, a dig depth going on 5m and full four wheel drive and four wheel steer. What Robin wanted was a machine which would make his job easier. "I do a lot of trenching and ditch cleaning work." Robin commented "This means a lot of repetitive moving the machine forward to

continue to work. I've used a tilting hitch on the last 4CX which expanded the range of jobs I could do without moving the machine." Robin says "But I wanted a little more, as you always do! Holt JCB weren't able to meet my requirements and I came across a video on YouTube of a Danish operator with an Engcon equipped 4CX. It was then I knew what I wanted! I watched the video time after time and constantly thought that this is what I wanted from my machine."

The Specification

Mark Clare at Engcon took the original call and it was soon quite clear that Robin wanted something that didn't currently exist and it soon became one of those "if we build it, will you buy it? I'll buy it if you can make it" conversations. Because of the



complexity of Robin's requirements and the functions that he wanted on the joysticks, Engcon's DC2 control system was used with specially modified MIG joysticks to create the operating platform.

The standard machine from Staffordshire is an impressive beast. Equal sized wheels and tyres front and rear, 2.4m wide 4-in-1 bucket with forks and the JCB Extradig extending dipper make the machine a very versatile and manoeuvrable tool in the right hands. "We needed to incorporate all of the standard JCB operating parameters into the DC2 system." Engcon's Installation Engineer Jamie Kirk explains "With the CanBus system it is supposed to be straightforward but as we had nothing to go off, it was a case of starting from scratch. We had the basics from the Danish model, but both Robin and I wanted to go further.

Because Robin wanted to use a breaker and dig deep trenches, a twin-hitch EC209 with full EC-Oil top and bottom and a detachable gripper was chosen. The MIG Joystick rollers control these functions and much more besides: A Forward, Neutral, Reverse (FNR) switch on the right hand joystick controls the JCB auto gearbox, and a roller on the opposite joystick provides steering. The rear stabilisers, Powerslide and extending dipper are all on proportional rollers which can be operated simultaneously, alongside the rear auxiliary circuit. "I've put a vertical roller in to the right hand stick to allow for a more intuitive operation of the Extradig function and the 4 in 1 loading shovel jaw." Jamie commented "The

standard set up is on a roller but a left to right version. We all believe that the vertical one is far better and easier to operate which means Robin's hands are almost always on the levers. The Q-Safe hitch is operated in the standard way an excavator version is.

Robin wanted to be able to operate the backhoe whilst facing forward and the loader whilst looking out of the rear window! "When I'm doing long trenches, I want to be able to lift the front bucket off the floor, drive forward a few metres and start using the backhoe again." Robin explained "Or if I'm cutting a hedge, I want to be able to move the backhoe away from an obstacle."

An additional accelerator pedal and brake pedal were incorporated into the flat floor underneath the rear window. With an eye on the health and safety implications, Jamie wanted to incorporate a system which was only operable should Robin be facing the rear. "I didn't want anything falling onto the accelerator or the brake pedal when Robin was driving in the conventional manner." Jamie explained "To do this we have installed a sensor in the system to isolate both pedals once the seat is turned around."

Efficiency

With a road speed of 40km/h the 4CX beats pretty much all wheeled excavators and is regarded as still one of the most 'roadable' machines around (in joystick steering mode, this is limited to under 20km/hr). Combined with the front loader this means that this is very much a tool of choice for many owner-operators.



Adding the tiltrotator means repositioning is vastly reduced and, when it is necessary, being able to do it facing the backhoe transforms the digger into a very much 21st century machine.

Quickly dropping the 3-foot bucket off the loading shovel, Robin was able to level out a piece of land before spinning the machine around and starting off a small ditch. What amazed everyone was his ability to pick up the operation of the tiltrotator so quickly. "This is my first time on a tilty!" Robin explained later "I've been used to the tilting hitch, so I suppose I was halfway there!" With the hole completed, the bucket and stabilisers were lifted off the ground before Robin, still facing rearwards, set off a few metres to relocate himself and elongate the trench a little. A press of a button and a tweak on a roller saw the backhoe quickly repositioned thanks to the Powerslide before Robin tidied up his work area. Watching on, Andrew was asked if he had changed his mind regarding the operating of the 4CX. "I'll stick to my tracks!" came the reply. With a quick finish using the 4-in-1 the job was completed and, wanting to try the reverse driving method to the full, Robin crossed from one field to another driving the machine backwards facing the way he was going! "We have made sure that all of the controls are inverted whichever way the seat is facing." Jamie comments "This makes everything easier, safer and more intuitive."

Happy Families

Both Robin and Andrew then took turns to operate the

machine with Andrew returning to the gathered Engcon team with a smile on his face. "I would definitely think about giving this a go now." Andrew commented "It's easy to operate, smooth and just feels right."

Robin on the other hand said "I'm extremely pleased with the way it's turned out, it's just what I asked Engcon to do, they've done a great job. It will take a lot to get me out of this now!"

Whilst at the top end of an 9-tonne excavator budget, the Webbers do have an ace up their sleeves. "We've also ordered an 8-tonne excavator from Holt JCB with DC2 and EC-Oil so we can swap the tilty", says Andrew. With a wry smile, Robin grins and says, "That's not going to happen!"

Engcon's Robert Hunt commented: We've been wanting to do something like this since I joined the company four years ago. The backhoe loader is a machine that retains a lot of affection within the digging community and Robin has generously allowed us to showcase how Engcon can transform a machine – not just with the tiltrotator, but with our full arsenal of goodies, including twin-hitch EC-Oil, top and bottom, steering and auxiliary control and much, much more. I've also got to pay tribute to Jamie and the rest of the team who have really pulled a rabbit out of the hat with this. Within a week of putting a taster out on Social Media, we've had over 20,000 views and enquiries from as far afield as Sweden and Poland!



Engcon introduces automatic quick hitch to connect high-flow hydraulic tools on excavators of up to 40 tonnes

Engcon is set to begin production of the EC-Oil 80, its largest automatic hydraulic connector to date.

The connector will allow large, high-flow tools to be quickly and easily connected to excavators of up to 40 tonnes using the Q-Safe 80 quick hitch, meaning the operators can remain seated in the excavator when connecting or disconnecting the tiltrotator and other hydraulic tools.

This will make the Q-Safe 80 Engcon's most powerful automatic quick hitch so far. The system will come with an EC-Oil 70 block, two ¾ inch connectors and connections for electrical power and central lubrication as standard, allowing automatic connection to Engcon's tiltrotators with equivalent EC-Oil connectors.

The standard configuration will allow hydraulic flows of up to 250 litres through the Q-Safe 80 quick hitch. Should even higher flow be needed, the EC-Oil 70 block can be replaced with an additional

EC-Oil 80 block, two 1-inch hydraulic connectors, and ½ inch hydraulic connector and two electrical power connections to reach a flow of 300 litres, enabling the connection of large, high-flow hydraulic tools.

"There is great demand for an automatic quick hitch for large excavators, as the large manual hydraulic connectors from ¾ inch upwards are heavy and difficult to handle," says Fredrik Jonsson, Research and Development Manager at Engcon Group. "EC-Oil 80 can transform connections for large excavators and tools, so that jumping in and out of the machine to struggling with awkward, pressurised, messy hydraulic connectors will be a thing of the past."

Engcon began testing the prototype for the EC-Oil 80 in 2018. The model will

be ready for full-scale production in the spring of 2019.

Automatic hydraulic oil connection to the quick hitch and tiltrotators will be available in sizes QS45 to QS80, and will come as standard with the purchase of a machine hitch, tiltrotator and DC2 control system.

Engcon's hydraulic tools, compactors, sorting buckets, timber grabs, rotating brushes and pallet forks can be factory fitted with EC-Oil automatic hydraulic connectors, and the company also offers upper section/adapters that can be welded or bolted on to the customer's existing hydraulic tools.

Engcon develops sorting grabs for new generation of tiltrotators and excavators

Engcon is modifying its stone and sorting grabs to meet the needs of a new generation of tiltrotators and excavators.

A series of adaptations will strengthen the grabs and improve their performance with excavators across a range of weight categories. The new grabs will be available in six different sizes suitable for excavators from 1.5 tonnes up to 33 tonnes.

Grab arms will be closer together, meaning the tools will retain small items more securely. Grabs will also be pre-prepared for the installation of side plates, meaning a stone and sorting grab can quickly and easily be converted into a clamshell bucket.

As with Engcon's existing grabs, the attachment points will be bolt-on and ready for the EC-Oil connector. All joints will be



Engcon's tilt sensors improve excavator guidance systems

Engcon is developing its own tilt sensor for the market's most common excavator guidance systems. The sensor will provide a clear interface, cheaper installation and facilitate support for users.

For a number of years, Engcon tiltrotators from the EC209 and up have been compatible with the market's major excavator guidance systems. Some of the manufacturers also offer an automatic tilt function. Engcon is now taking things further by developing its very own tilt sensor.

"While our tiltrotators work extremely well with existing excavator guidance systems, we always felt there was room for improving the interface. We're fixing

that now with our own tilt sensor," explains Peter Huczowski, Engcon's chief information officer.

Peter adds: "The sensors we've developed have a razor-sharp interface, since Engcon provides all the necessary information from the tiltrotator via the DC2 control system cabling. This will save excavator-operators time and help to reduce installation costs, as the tilt sensor will be included as standard in our ePS installation kit – the Engcon Positioning

System."

Tests are due to be carried out in 2019, with Engcon anticipating that its tilt sensor will be compatible with the market's most common excavator guidance systems before the end of the year.

Engcon's tilt sensors will be retrofittable to Engcon's tiltrotator models from the EC209 up to the EC233.

fitted with expander bolts to minimize play, cutters will be bolt-on for simple replacement and the grabs ready for mounting bucket teeth.

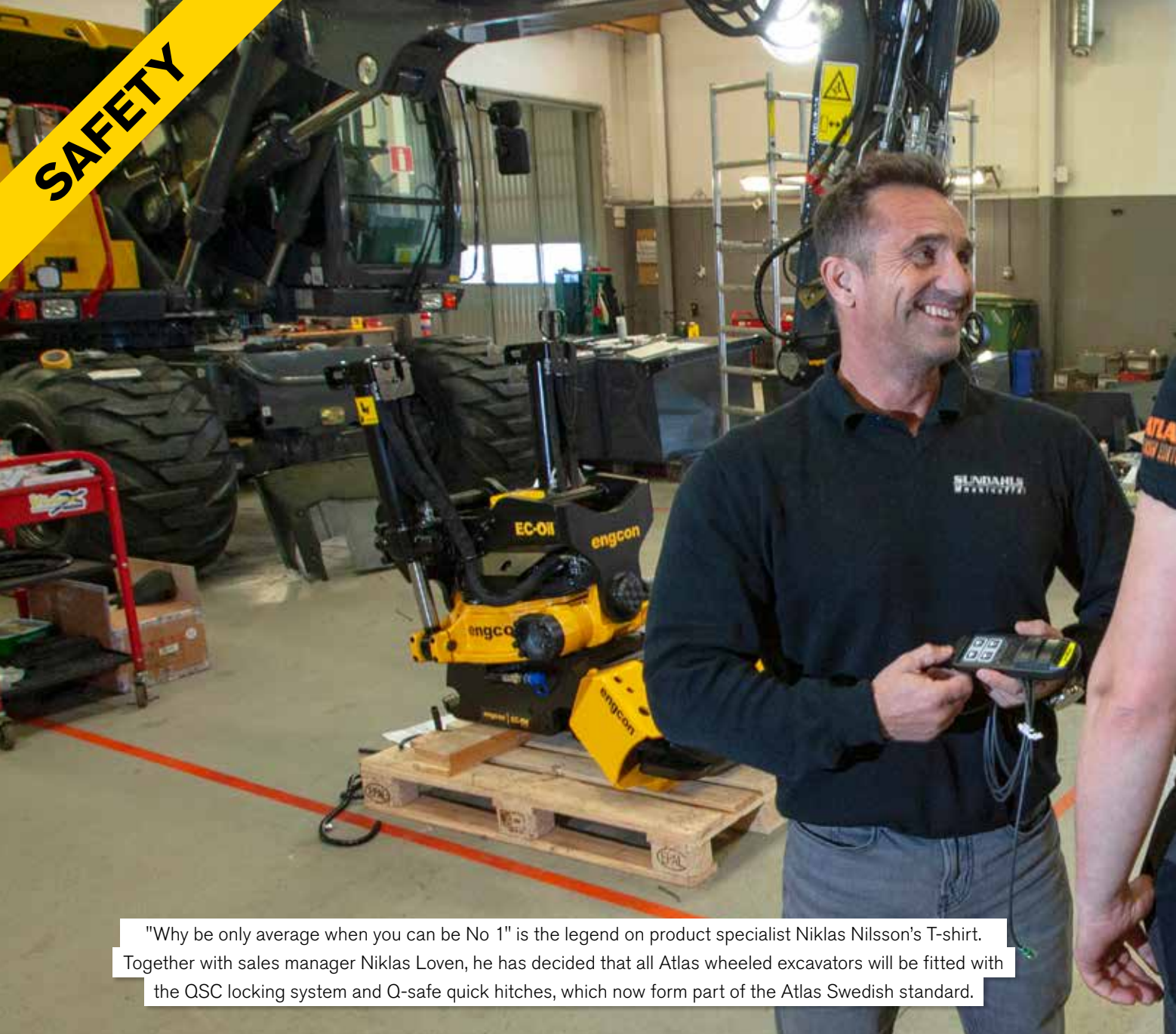
The SG12 will be the first model in the new grab series for release, with a grab area of 0.34 m² and suitable for 6-12 tonne excavators. The new stone and sorting grab will be on show at Bauma 2019, with production due to begin in the summer of 2019.

"Since Engcon first launched its SK stone and sorting grabs fifteen years ago, the tools have become increasingly common due to the flexibility and adaptability they offer excavator-operators. Tiltrotators

have of course also developed during this time, with new weight categories and more powerful excavators. As well as strengthening the grabs, these adaptations will mean better performance and adaptability for a new generation of tiltrotators and excavators," says Johan Johansson, design engineer at Engcon Group.



SAFETY



"Why be only average when you can be No 1" is the legend on product specialist Niklas Nilsson's T-shirt. Together with sales manager Niklas Loven, he has decided that all Atlas wheeled excavators will be fitted with the QSC locking system and Q-safe quick hitches, which now form part of the Atlas Swedish standard.

Safe locking and safe quick hitches are the Swedish standards on Atlas wheeled excavators

"A standardised method for handling the quick hitch lock function is a really good safety solution for the prevention of accidents involving dropped tools. We decided to introduce the QSC lock system and the Q-Safe quick hitch as standard on our machines because we want to offer the very best and safest solutions."



Atlas Swedish Edition means the QSC locking system and Q-safe quick hitch are included in the safety system on Atlas wheeled excavators.



SUNDAHLS MASKINAFFÄR...

... is one of Sweden's biggest private construction equipment trading companies with annual sales just north of SEK 400 million per year. The company sells construction plant and equipment for the forestry, agriculture and landscaping industries.

Sundahls is based in Växjö, has a branch in Karlskrona and a subsidiary, Höglandets Maskin AB, in Vetlanda. All three facilities have construction plant sales, equipment installation, spare parts sales and service workshops.

They also have dealers in Staffanstorp, Kungälv, Karlstad and Uppsala. In addition to Atlas, Sundahls sells plant from JCB, Schaeff and Rottne.

So say sales manager Niklas Loven and his colleague, salesman and product specialist Niklas Nilsson at Sundahls Maskinaffär. Sundahls is the general distributor for Atlas wheeled excavators. The machines are sold and fitted out in the company's facilities in Växjö and Karlskrona.

Because the QSC's control and safety systems provide maximum safety functions and are also standardised to work on all excavators and all quick hitches, it's an easy decision for a company like Sundahls to introduce them as their own standards.

"Atlas is a renowned, tried-and-tested wheeled excavator that is clawing back market share and climbing in sales statistics. Right now, we're selling around 60 machines per year," they tell us.

One of the success factors is Sundahls' policy of standardising machine equipment for the Swedish market. Two Atlas models are sold in Sweden, the Atlas 140 at 14.7 tonnes and the Atlas 160, which weighs 16.7 tonnes. Both boast the term 'Swedish Edition' in the model designation to denote standard equipment that complies with Swedish construction plant contractor preferences. For example, they now have MIG2 joysticks from Engcon installed in the factory in Germany..

Thanks to their positive experience of Engcon operations and reliability, Sundahls has also chosen Engcon tiltrotators as standard equipment on machines modified for Sweden.

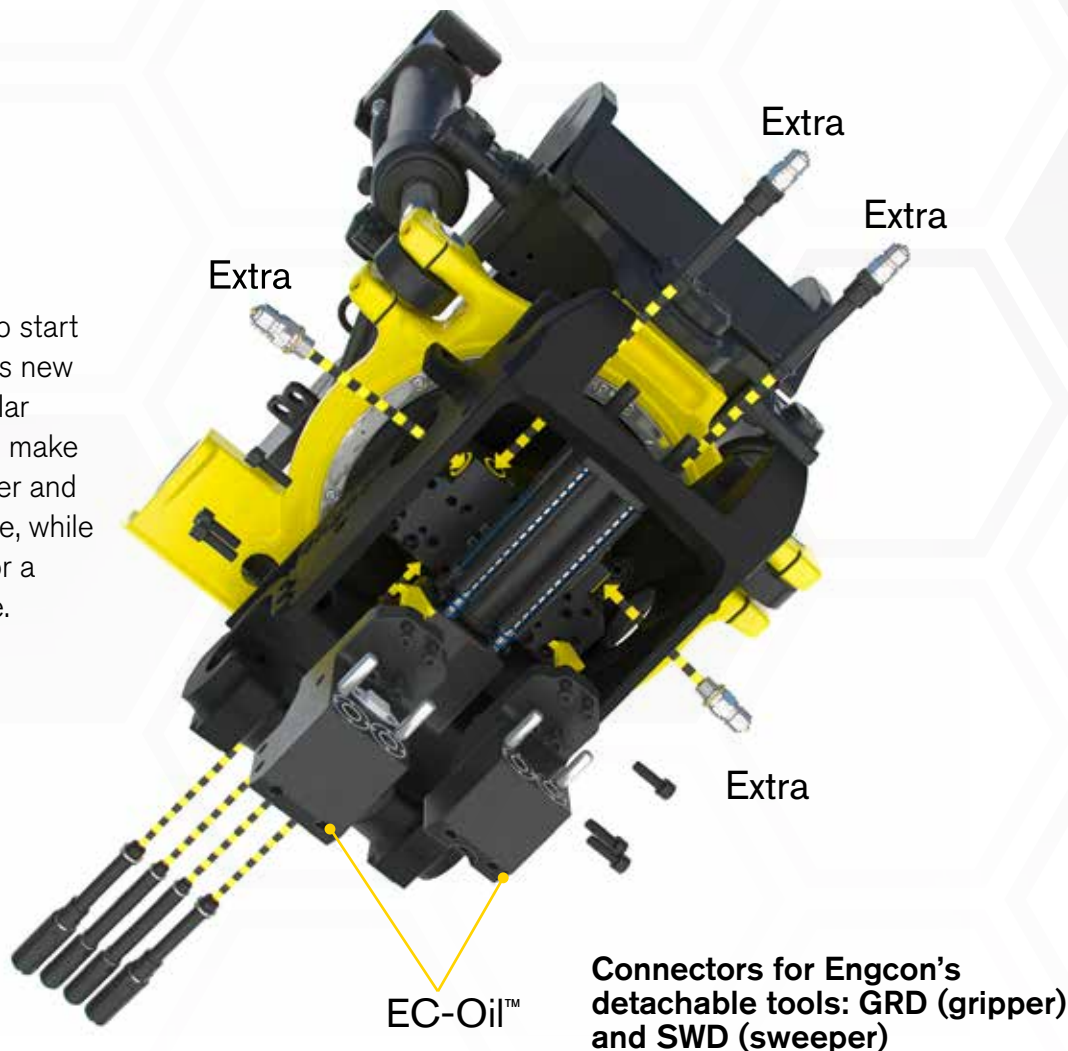
"We know Engcon's stuff works smoothly and efficiently and that Engcon offers quick support," says Niklas Loven.

It was also recently decided that QSC and Q-safe would be the Atlas standard in Sweden.

"Everyone shares our view about working to achieve vision zero for accidents. This solution creates better conditions for making the vision reality to the greatest extent," say Niklas Loven and Niklas Nilsson.

"Some machine operators worry that using this kind of safety system will be difficult. But we have two good arguments to counter that. Firstly, QSC is quick and simple to use, and secondly, there isn't a single operator out there who wants to know how it feels to injure another person with his or her machine. All it needs is a little thought," they add.

Engcon is set to start production of its new hoseless modular system that will make tiltrotators lighter and easier to service, while also allowing for a higher flow rate.



Engcon set to produce new hoseless modular system and high-flow swivels

First introduced in the spring of 2018, the unique system enables the EC-Oil automatic oil connection system, the hydraulic connections for the GRD grab cassette, and the SWD rotating brush, to be retrofitted entirely without the use of hoses. Engcon is now ready to proceed from the prototype and preproduction stages to full-scale production.

The unique design makes installation simple and leaves the quick hitch 'uncluttered'. Because there is no need to run hoses when the block is bolted on, retrofitting Engcon's EC-Oil automatic oil connection system is now even easier – and it's just as easy to install and retrofit EC-Oil onto Engcon's new detachable GRD grab cassette and SWD rotating brush.

New high-flow swivel

Alongside the new modular quick hitch, Engcon has developed a new high-flow swivel, built for pressures of up to 350 bar. The swivel permits hydraulic flows of up to 200 litres per minute by feeding directly into the hydraulic functions, so no oil passes through the tiltrotator's valves. The new high-flow swivel also has a separate case drain line, allowing oil to be drained via the tiltrotator.

"This is the latest development of our unique modular concept, which allows excavator-operators to choose the products they want and easily incorporate others at a later stage. Our latest system eliminates problems linked to hoses moving or leaking, improving efficiency and safety across a range of products and activities," says Fredrik Jonsson, Research and Development Manager at Engcon Group.

Set for 2019 delivery

Modular quick hitches in sizes QS60 for EC214 and EC219 will be available from January 2019 in Nordic markets, and from May 2019 in other markets.

The QS70 for EC233 will be available in Nordic markets from January 2019, and in remaining markets from July 2019. The QS70 for EC226 will be available from March 2019 and October 2019 respectively.

Engcon begins production of detachable grab cassettes for its biggest tiltrotator

Engcon has for some time been the world's sole producer of a unique grab cassette for excavators in the 1.5-33 tonne class. The range allows excavator-operators to connect or disconnect the grab cassette in under a minute, using a simple system that requires no manual fastening or connection of hydraulics.

The GRD70 grab cassette – the latest in Engcon's range – is now set to enter production. Designed for use with Engcon's largest tiltrotators, the EC233 and EC226, in conjunction with the QS70 quick hitch, the GRD70 has a gripping force of 2.2 tonnes and grab width ranging from just 13mm to almost one metre. The production of the GRD70 follows its predecessors: Engcon's GRD20 grab cassette for EC214 and EC219 tiltrotators with the QS60 quick hitch was launched first, followed by the GRD10 for the EC209 tiltrotator and QS45 and QS50 quick hitches.

As with the smaller models, GRD70 operators can connect or disconnect the grab cassette in around one minute using a simple procedure. This process activates the locking mechanism, which allows the hydraulics to be connected or disconnected at the

same time as the grab cassette is attached or released. It's the ultimate solution for anyone who wants to quickly and easily disconnect the grab cassette when it's not needed.

The EC233 with GRD70 grab cassettes will be available from January 2019 in Nordic markets, and from July 2019 in all other markets.

DATA GRD70

Grab cassette for the EC233 with the QSD70 quick hitch

Max grab width: 960 mm

Min grab width: 13 mm

Clamping force: 2 234 kg at 21MPa

Weight: 166 kg



ENGCON TOTALITY – YOUR ASSURANCE

A single supplier makes **support and service easy**

Not only does Engcon have the market's widest range of products for your excavator, we get fantastically high marks from our customers year after year for our phenomenal support and aftermarket performance.

We develop all of our products in-house and we take full responsibility for them.

Telephone support or practical service is always available through our skilled personnel, dealers or service partners.

And if you've chosen our smart DC2 control system, we're also able to make adjustments remotely via the mobile telephone network wherever you may be.

One supplier, one total solution – it doesn't get simpler than that.



Tim Leach
Service and
Warranty



Andrew Badham
Sales, Spare parts
and Administration



Robert Hunt
Sales, Marketing and
Administration



Jamie Kirk
Service and
Installation



Mark Clare
Sales and
Demonstrations



Kate Locke
Sales, Spare parts, Credit
Control and Accounts



Chris Gray
Sales and
Spare Parts



James Noble
Sales and
Marketing