

TILT & ROTATE



TAKING EXCAVATION
TO A NEW LEVEL

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EXCAVATORS

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TACKLES THE
TOUGH STUFF

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A continued focus on innovation and partnerships for a sustainable future

Partnership with the CE Dealer Team

The World Championship in Rallycross is in full swing and engcon continues to be a partner in initiatives that focus on electric vehicles. Just like last season, we are proud partners of the Construction Equipment Dealer Team (CE Dealer Team) with drivers Klara Andersson and Niclas Grönholm. The season began on 1–2 June in Montalegre, Portugal and has now reached its final stage with the seventh round taking place in October in Cape Town, South Africa. Because engcon is at the forefront of sustainable excavation, it's especially gratifying that we're also involved in this year's sustainability initiative in rallycross.

New, improved machine hitch for excavators in the 12–19 tonne range

engcon works constantly on product improvement and always with a focus on the end customer. In May, we launched a new, improved machine hitch for excavators in the 12–19 tonne range as a further step in our improvements for the end customer. One of the advantages of the new machine hitch is its hoseless EC-Oil block, which provides longer life and ease of service, maintenance and retrofitting. Read more about the new S60 machine hitch on page 3.

Open solutions make things easier for the end customer

We passed an important milestone in May when world-leading excavator manufacturer Caterpillar chose to follow our strategy of creating open interfaces where the end customer is able to benefit from all of the advantages the excavator and the tiltrotator both have to offer. Read more about this new feature on page 12.

Unique collaboration between engcon and upper secondary school in Strömsund

Through its collaboration with engcon, Hjalmar Strömer school in Strömsund in Sweden is able to provide its students with the very best environment for their future careers. Thanks to the latest technology from engcon and unlimited time in the cab, the world of excavation lies at their feet. Read more about the collaboration on page 18 and let us know about any interest in a similar collaboration near you.

Martin Engström

Product Manager, engcon AB



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engcon has launched a new and improved machine hitch for excavators in the size of 12–19 tons

engcon, the leading, global manufacturer of tiltrotators, quick hitches and accessories for excavators, is constantly working to improve its products, with the end customer always in the focus. To further enhance the end customer experience, engcon is now launching a new, improved machine hitch for excavators in the size of 12–19 tons.

In addition to making the machine hitch stronger, the retrofitting with EC-Oil blocks will be easier as the new machine hitch contains almost no hoses and minimises the risk of leaks. The end customer will also notice that the new bolt-on EC-Oil block has an increased hydraulic flow.

“Thanks to our innovation-driven work with a focus on the end customer, our customers can rely on engcon to always deliver state-of-the-art technology. Our package should be the complete solution and the premium product that our customers want, now and in the future,” says Martin Engström, Product Manager at engcon.

Advantages with the improved machine coupler S60:

- ▶ EC-Oil block without hoses, this means a longer service life, easier for repairs, maintenance, and retrofitting.
- ▶ Reinforced construction both laterally and in the digging direction.
- ▶ Increased stability around attachment points to the machine that contributes to a better operating experience.
- ▶ Improved and more flexible hose routing between excavator and machine hitch.
- ▶ Bolted lifting hook and possibility with lifting eye.



Read more





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CE DEALER TEAM

Parker

ELECTRIC

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COOPER TIRES

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**engcon continues its
electric rallycross initiative ▶**



The FIA World RX Championship, the electric rallycross World Championship series, began the season with competitions in Montalegre, Portugal 1–2 June and has now reached its final stage, with the seventh round taking place in October in Cape Town, South Africa. Just like last season, engcon is proud to partner the Construction Equipment Dealer Team (CE Dealer Team) with drivers Klara Andersson and Niclas Grönholm.

2022 was the first time that a World Championship was held with fully electric cars – a major step toward sustainability in the world of motorsport. The initiative is wholly in line with engcon’s ambitions when it comes to climate transition in the world of excavation.

“The partnership has been very beneficial for us,” says Martin Engström, Product Manager at engcon. “Our vision of sustainability for the world of excavators is a perfect fit with the new electric World Championship

series and the EV initiative. It’s clear we’re pulling in the same direction. With our new generation of tiltrotators, engcon is focusing on energy savings. Our innovative solutions reduce dependence on fossil fuels and provide energy-optimised excavators that are even smoother to drive,” he continues.

Aki Järvinen, engcon’s country manager in Sweden, is also very positive about working together with the CE Dealer Team.

"We're delighted to take part in such an exciting sustainability initiative. Not only is the initiative a step toward a more sustainable society, it also enables competitive motorsport. The all-electric cars, with a motor output of 680 hp, can accelerate from 0–100 kph in less than two seconds, which is faster than in Formula 1," says Aki Jarvinen.

” The partnership has been very beneficial for us.

MARTIN ENGSTRÖM, PRODUCT MANAGER

In conjunction with the World Championship series last year, we launched a product known as the recovery plate, a tool for use when moving live electric vehicles on the race track. The ability to move cars on the race track quickly without the intervention of track staff enhances safety during such operations. The recovery plate is used together with a tiltrotator, making operations even more efficient as the tiltrotator provides great flexibility through its unique tilt and rotation capabilities. The product was developed in a collaboration between engcon, Volvo CE and Granfors Racing.

Great interest was shown in the electric World Championship series in 2022. Motorsport electrification is in its infancy and the eyes of fans and partners the world over were keenly focused on the various races. Both Klara Andersson and Niclas Grönholm have signed a multi-year contract with CE Dealer Team; last season Klara finished seventh and Niclas third in the trailblazing rallycross series. Interest has remained great throughout this year's season, and engcon is looking forward to cheering on Klara and Niclas at the last two events of the season in Cape Town, South Africa.

For further information, visit the CE Dealer Team: cedealerteam.com/events.



Taking excavation to a new level

Located in the Gippsland region of Victoria, Bairnsdale is a rapidly growing regional city of around 18,000 people. Residential development is progressing steadily around the city, which provides considerable work for people like Casper Wootton from Bairnsdale Excavation which he founded in 2020.

Currently around eighty percent of his business is working direct for private residential property owners who have built homes and now looking to finish their construction by adding driveways, embankments, retaining walls and other landscaping forms.

” **The engcon system would be saving me at least one hour per day.**

CASPER WOOTTON

Casper operates a Kobelco SK45SRX-7 excavator which is deployed mostly on forming works for driveways and retaining walls. Casper first noticed the engcon tiltrotator system in 2016 when he was searching on social media. However, it was not until 2019 did he see the technology demonstrated, while he was visiting the Diesel Dirt & Turf Expo in Sydney.

Working in the earthmoving industry for some time, Casper had been operating compact track loaders and excavators, although he admits to particularly enjoying the operation of excavators and loader backhoes.

Doing the homework

“I did a lot of homework by speaking with other operators online about their experiences with the

engcon system, both in Australia and in the UK. All agreed that it had made a huge impact on their business, their profitability and the way it opened up new opportunities for providing earthmoving services. Speaking with these people who had been operating the system for some time who had total conviction about the benefits gave me all the confidence I needed to invest in the system”.

His current project involves driveway preparation, trenching for drainage, levelling soil for a lawn installation and building a rock retaining wall. These tasks involve multiple tool changes which would be time-consuming and unproductive without the assistance of his engcon tiltrotator system.

“Every time I'm operating the excavator, I am conscious of the need to try to improve my skills and techniques to make sure I get the most out of the machine in completing the task in hand”, Casper said.

“Whether it's just knowing not to overfill the bucket and spilling the contents, or better mastering the engcon controls to speed up the process, every day is a learning experience. As soon as I saw the tiltrotator working I said to myself ‘this has got to make life easier!’ I immediately understood how the tiltrotator would improve every aspect of digging and from that moment I knew that I just had to have one.” He said.

First seeing the engcon system on social media, Casper realised it offered a huge advantage for him in the type of work that was the focus of his business.

He didn't hesitate in making the decision to purchase the tiltrotator and the engcon EC-Oil along with a full set of tools.

A full suite of tools

"I have a Norm Engineering 4-in-1 bucket which is connected with the EC-Oil, as well as the Intermercato five-finger grab and Digga auger drive. Then I have a grading beam, grading bucket, 600 millimetre general purpose bucket and a 300 millimetre cable bucket to complete the package. I'm also planning to acquire a set of pallet forks shortly which will pretty much complete my inventory of tools that I need."

While Casper is still in the early days of using the tiltrotator, he has been absolutely convinced of its benefit, observing that even in these early days, the system will save him at least one hour per day on tool changes alone.

"In this business, it's all about saving time. I am using many tools and attachments every day and across many differing construction projects. Having the engcon tiltrotator and the EC-Oil system to change attachments safely and without effort adds up to a huge amount of time saving. Conservatively, on jobs such as constructing a retaining wall, the engcon system would be saving me at least one hour per day, compared with previous downtime caused by manual and unproductive tool changes.

Safety is all important

"Just as important, the engcon system makes all my job sites safer to work on, as the engcon system ensures that connections can only be made with absolute safety. Other significant cost savings are made by minimising or removing the need for costly additional labour on sites.



“Precision and time saving is also another bonus by using the system, as it enables me to get up very close to fences, walls, concrete foundations, beams or other infrastructure that need to be avoided while digging,” Casper added.

Even with his limited experience with the engcon system, Casper said there was no way he would ever return to operating the excavator without an engcon tiltrotator, particularly as he has the top and bottom EC-Oil which he said is absolutely amazing in terms of the speed, safety and efficiency in his day-to-day work.

Since working with the engcon system, Casper has realised that the capabilities provided by the tiltrotator

and its tools has opened up a whole new potential business. He is now actively seeking work with councils, water boards and other government bodies within the area who have already expressed interest in him carrying out work.

The major reason for their interest is the safety afforded by the machine with the EC-Oil, efficiency and precision and time savings of being able to switch tools safely and quickly.


Casper explained that he was still discovering the benefits of using the system and has realised that under no circumstances could he ever return to the days of using fixed buckets. With just fifty hours experience with the tiltrotator, Casper said he has been amazed at the increase in productivity and the ease of operation that the system has given his business.

Creating opportunities

“We are the first business in the Bairnsdale area that has an engcon tiltrotator system, so we are in an excellent position to promote our services to our local government bodies, shire authorities and other instrumentalities such as the water board to highlight our capability in terms of satisfying their specialised requirements.

“It's all part of a changing industry where safety has become all important and new technology has enabled better precision and efficiency. Having the tiltrotator, EC-Oil and the right tools is exactly what I need to expand the business and open new markets, which will enable us to grow”, Casper added.





” Having the tiltrotator, EC-Oil and the right tools is exactly what I need to expand the business.

CASPER WOOTTON



engcon compatibility: Cat® Next Gen excavators (NGH)

engcon is proud to announce that its next generation DC3 steering system is compatible with Cat® NGH excavators in the 13 to 35 tonne weight range. This will make installation of engcon's tiltrotators and control systems on Caterpillar excavators much simpler than before.

DC3 - the next generation control system for engcon tiltrotators, is based on a new hardware and software platform that makes installation and connection to interfaces supplied by machine manufacturers easier compared to today's conventional aftermarket

installations. By using the third party tiltrotator support interface now available on Cat® NGH, the installation of engcon tiltrotators is completed in a few hours, instead of days.



“With demand for our products increasing on a global scale, it is essential that we make our tiltrotator more available to the customer. Making sure the customer can enjoy the full value of what the tiltrotators and machine have to offer is equally important. Now that the new third-party tiltrotator support interface is available on Cat® NGH and our DC3 control system, both can be achieved,” says Tomas Wall, Solutions Architect for Control Systems at engcon.

By making engcon's next generation tiltrotator control system compatible with the Caterpillar third-party interface, installation is not only simplified, but customers can now also enjoy all the technical features offered by Cat® NGH combined with engcon's tiltrotator.

The interface allows the tiltrotator to be controlled seamlessly via the Cat® NGH joysticks. It is also fully compatible with engcon's second generation positioning solution, ePS v2, which allows the tiltrotator to transmit both tilt and rotation information directly to the machine.

The positioning information can then be used in Cat® NGH functions such as Cat Grade, Cat Payload, and Cat E-Fence. Because tiltrotators from engcon are now fully compatible, customers can take advantage of all the technology Cat NGH excavators have to offer, while leaving the cab intact and free from additional sensors.

engcon's DC3 control system, compatible with the CAT third-party tiltrotator interface, will be available later this year; for further information about the product, contact your local engcon dealer.

Sivad Group tackles the tough stuff



Aaron Davis founded Sivad Group Pty Ltd six years ago and operates throughout the ACT region. Aaron was introduced to the earthmoving industry through a pathway that included operating a telehandler, acquiring one watercart and eventually identifying an opportunity to expand the business by adding an excavator.

Sivad Group has six employees and specialises in detail excavations and final trim. It has a truck and an excavator fleet that comprises three 14-tonne, one 23.5-tonne and one 30-tonne machine.

Earthmoving services provided by Sivad Group are primarily to Tier 1 companies. Major construction contractors that regularly engage Sivad's services include the national and international BMD Constructions and more extensively, by the highly regarded Canberra based COMPLEX CO.

"While the majority of our work is for these major Tier 1 companies, we also provide services to numerous other specialist constructors and infrastructure companies in the region. Our latest fleet addition was a Case 235 30-tonne excavator which is equipped with an engcon hitch and a top and bottom engcon EC-Oil system.

Discovering engcon

"My initial awareness of the engcon system was on Instagram, where the solution illustrated immediately caught my attention. I was familiar with many of the different tilt-hitches on the market, which appeared to be a solution for the type of work I was undertaking. I had previously worked with a non-engcon hitch that provided a partial solution, however it fell short of the performance that I really needed.

” I was impressed with flexibility, safety and reliability of the engcon EC-Oil system.

AARON DAVIS

"While not being entirely satisfactory, this is early experience demonstrated that I couldn't go back to a normal hitch system. With the knowledge I had acquired, I invested considerable time researching the options available for a safe and efficient hitch and tilting system. "I looked very closely at the engcon system including the EC-Oil and it was immediately apparent as a total solution in terms of time saving by not having to leave the machine's cabin to change the many tools that I use in the course of my day.

"In particular, I was impressed with flexibility, safety and reliability of the engcon EC-Oil system and the variety

of elegantly engineered purpose-built attachments and control processes that comprise the total solution. To my home system word large number of satisfied users throughout the world which gave me great confidence to move forward with the investment," said Aaron.

Major residential development

Sivad Group's current project is on a major new suburban residential site at Jacka being developed by Complex Co. With a total of 319 house lots and 11 multi-units, this development is expanding the suburban housing capability of the Canberra region. Part of the work involves precision trench works to carry service lines for distribution to individual house lots.

Complex Co has engaged the Sivad Group to perform a variety of excavation and land forming tasks throughout the Stage 1B residential development. The work involves the need for numerous excavator tool changes throughout the day as a result of moving the machine between jobs throughout the large site.

"We are performing many jobs right across the Jacka development and these include trenching, backfilling and trimming. Many of the tasks involve preparation for storm water and sewer works.

"For these jobs the engcon system is absolutely indispensable. I can swivel a bucket to clean out a drain. I can get to places where conventional buckets can't reach. And I could perform the work with the high degree of precision and efficiency. It has made a huge difference to the way I operate. On large development sites like this, the prime contractor will often assign us a task that cannot be performed by others or who are unable to perform with the same degree of efficiency and safety.

"The current task involves excavation of a trench to carry multiple utility services for distribution throughout the development. Ground conditions comprise hard, dry compacted clay material that needs to be precision ripped, removed and placed for back filling once utility services have been installed.

"This operation involves constant tool changes - from the ripper to the bucket and back to the ripper. The engcon EC-Oil system saves more than an hour a day and this task would be less safe and more physically demanding without this valuable technology," Aaron said.

Total reliability

“From looking at other operators and their experience with the engcon system I was convinced of its reliable performance and confident it would give me all the flexibility and efficiency that I needed.

“From the outset I knew that I needed a full suite of tools to ensure maximum productivity and efficiency from the investment in the engcon system. We have a ripper, a full set of buckets, hydraulic pallet forks, an asphalt cutter, multi-purpose grab and a grader beam. Shortly ,we will also have a hydraulic hammer and a vibrating plate”, Aaron said.

” After using the engcon tiltrotator and EC-Oil system, there's no chance any contractor or operator would want to work any other way.

AARON DAVIS

Delivering customer satisfaction

Wayne Donegan of Complex Co said it is a civil engineering company focusing on bridgeworks and technical civil works. It undertakes major public works and infrastructure projects that require adhering to high engineering and safety standards. Pollution

prevention, waste minimisation, resource conservation and compliance is integrated into planning and decision making throughout all aspects of the business.

“We identify, assess and effectively control health and safety risks to provide the highest standard of safety for our team and the broader community. Our approach to quality is a distinguishing value of the company and the foundation of our reputation and endeavour to exceed quality expectations at every opportunity.

From our perspective, we appoint contractors who have the ability to work within safety and quality standards, policies, and to the level of efficiency demanded. The Savid Group has proven to be a reliable and diligent supplier in this respect, with work always completed on time and to our exacting standards,” Wayne said.

“Having the EC-Oil and the engcon tiltrotator has improved my time utilisation by at least fifty percent for ninety percent of the time I'm on the machine. The system has delivered massive time saving because every time I change tools I am saving at least ten minutes of valuable time.

“After using the engcon tiltrotator and EC-Oil system, there's no chance any contractor or operator would want to work any other way.” Aaron concluded.





Innovative collaboration with engcon gives students opportunities for promising careers

Thanks to the collaboration with engcon, Hjalmar Strömer school in Strömsund is able to provide its students with the very best environment for their future careers. Using the latest technology from engcon and unlimited time in the cab, the world of excavation lies at their feet.

"We're truly grateful and proud of our collaboration with engcon," says Klas Norlén, teacher in the construction course at the upper secondary school in Strömsund. "Were it not for our collaboration with engcon, the course would not have attained the level it has," he continues.

” This is definitely something the rest of the world should emulate.

KLAS NORLÉN

The collaboration began back in 2019 as there was a need for suitably trained machine operators in the industry. Today, the majority of students have jobs even before they have taken their high school finals, largely because they had the opportunity to use the latest products from engcon during their studies.

The machine currently used by students during school hours is a Volvo EWR150 equipped with an S60 machine hitch, an EC219 tiltrotator and a detachable grab cassette that is easily switched to a sweeper cassette. The machine is also equipped with EPS,

Volvo's Dig Assist, which communicates easily with engcon's tiltrotator and control system.

Klas Norlén also tells us that engcon employees from the rest of the world frequently make study visits to get insights into how the collaboration works.

"This is definitely something the rest of the world should emulate, as it would safeguard the skills supply for the industry," he said.

Martin Engström, product owner at engcon, also takes a positive view of the collaboration and would be happy to see other countries do the same.

"Considering the generational switch the industry is facing, engcon is not averse to collaborations with schools in other parts of the world," he said. By using our latest technology, students gain knowledge and an understanding of the limitless possibilities our products offer. It also helps us find innovative entrepreneurs who can help us develop the products of the future," continues Martin Engström.



” By using our latest technology, students gain knowledge and an understanding of the limitless possibilities our products offer.

MARTIN ENGSTRÖM

Do you know of any school that would be interested in collaborating with engcon?
If so, get in touch with us!

Scan here



The image shows a close-up of an excavator's hydraulic arm and bucket. The arm is yellow and black, with the 'engcon' logo visible on several parts. A yellow rectangular box in the upper right corner contains the 'engcon' logo in black text. The background is a blurred outdoor setting with other construction equipment.

engcon®

Full EC-Oil, full flexibility!

With EC-Oil, you can effortlessly change hydraulic tools in approximately ten seconds, all from the comfort of your cabin. Say goodbye to time-consuming manual processes and embrace the convenience and efficiency of engcon's automatic quick hitch system. Experience the difference for yourself - get yours today!

For more information, visit engcon.com/ecoil

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