

JN Bentley increases excavator efficiency with engcon's latest Tiltrotator technology

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Generation 2 tiltrotator systems from Engcon are part of the high-tech specification of three new Komatsu wheeled excavators for JN Bentley, one of the UK's leading civil engineering and construction companies. Each of the customised machines is being fitted with a fully integrated Engcon EC219 tiltrotator, SS9-2 control system and Q-Safe quick coupler.

As an existing Engcon user, JN Bentley had no hesitation in purchasing the latest Engcon tiltrotator system for its new excavators. "Engcon's package ticks all the boxes in terms of safety, efficiency and technology," says Alan King, a member of JN Bentley's Plant Team. "It will enable us to work more effectively in confined areas, and improve the efficiency of our operations on site. In fact, we are already planning to invest in a further 27 Engcon systems – both new and retrofitted – over the next 12 months." JN Bentley will be using the new equipment to deliver new-build and refurbishment schemes in the water sector, much of which is delivered through MMB, a joint-venture with global consulting giant Mott MacDonald, which acquired Bentley Holdings (including JN Bentley) in 2014.

The EC219 tiltrotator selected by JN Bentley is part of Engcon's Generation 2 series which includes models for excavators from 1.5 to 32 tonnes. The new range is designed to further increase profitability and excavator versatility, letting the operator tilt or rotate the bucket (or any other attachment) for optimum flexibility and accuracy. Being able to rotate the bucket 360 degrees makes tasks like backfilling and offset digging quick and easy, while tilting up to 45 degrees allows grading to be carried out precisely and in tight spaces. All models are equipped with double-acting tilt cylinders for optimised tilting force and a more even operation.

JN Bentley has combined its new EC219 tiltrotators with Engcon's SS9-2 control system. This second generation version of the popular SS9 nearly doubles the number of program modes available to the operator giving greater versatility with hydraulic attachments, as well as providing safer locking methodology which meets the requirements of EN 13031. In addition, the SS9-2 is able to handle voltage supply dips, a common problem with 12 volt excavators at start up.

JN Bentley's Engcon tiltrotator package is completed with Q-Safe, the only quick coupler for excavator tools and attachments featuring a triple-lock safety system. The Q-Safe system effectively hard wires Engcon's

safe use directives into its control system using a series of complementary fail-safes. For example, proximity sensors mounted in the hitch detect the positioning of both of the bucket axles, which allows the Engcon hitch control to activate audible and visible alarms and, optionally, disable the excavator's boom and slew functions when the hitch is open or is not fully locked with both axles in position. As well as significantly increasing the operational safety of the hitch, this system actively prevents the movement of buckets by hooking and lifting only with the rear jaws; as is possible with conventional hitches. The hitch also has, as standard, a check valve within the ram to prevent the hitch opening in the event of hydraulic failure, supplemented by double return springs.

Summing up, Alan King says Engcon was very receptive to JN Bentley's requirements and took a proactive approach throughout the specification and purchasing process. He concludes: "We really appreciated Engcon's willingness to visit our head office in Skipton and present the equipment to our plant team face-to-face. Overall, the service we've received from Engcon's UK team, Marubeni-Komatsu and our local dealer, K&W Mechanical Services, has been excellent."

Source: engcon UK